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ABSTRACT

This account of the Tanzanian health campaign opens with a brief explanation of how radio forums fit into the mass media scheme. Then, campaigns run in other nations are reviewed, with emphasis on aspects pertinent to the Tanzanian experience. The Tanzanian campaign, named Mtu ni Afya ("Man is Health"), had three aims: (1) to increase people's awareness of how they can make their lives healthier and to encourage both groups and individuals to take appropriate action; (2) to provide clear and simple information about the symptoms of specific diseases and their prevention; and (3) to encourage those who had participated in the national literacy campaign to maintain their skills by reading campaign materials designed especially for the newly literate. In addition to describing this health campaign which was undertaken in 1973, more recent development projects in Tanzania are also discussed. Thirty-eight references are listed. (LLS)

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TANZANIA'S HEALTH CAMPAIGN

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INTRODUCTION

Tanzania's *Mtu ni Afya* ("Man is Health") campaign sparked the imagination of M. Kimwago, a poet from Mohoro *ujamaa* village in Rufiji district. On June 16, 1973, Dar es Salaam's Kiswahili newspaper *Uhuru* published his poem.

MTU NI AFYA LESSON

To us the world is good
As good as potatoes
We want to be well
To be free in free air
But sometimes all this fades
Mtu ni Afya lessons are good for the family.

Glory be to the architects of this
We welcome the idea
To make us free
And lead the way
For our grandchildren
Mtu ni Afya lessons are good for the family

Let's be firm
In eradicating disease
Let's wake up at the cock's crow
Let's make it a routine
And let no one ignore
Mtu ni Afya lessons are good for the family.

Let's protect ourselves
Let's care for our health
When we fall sick
Let's call for medical help
From medical experts
Mtu ni Afya lessons are good for the family.

Let's clean our homes
Let's dig latrines
Doctors have inspired us
If we want peace
Latrines are the best shields
Mtu ni Afya lessons are good for the family.

Seminars have been conducted
We are all for it
Radio study groups have been formed
We listen attentively
To get the message clearly
Mtu ni Afya lessons are good for the family.

The seventh stanza I say
No more to say
Father and mother
Please forgive
Let's read
The lessons of diseases
Mtu ni Afya lessons are good for the family.

The man says let's not joke
Let's talk and discuss
Learn early
To prevent disease
Good health
We are all learners
Mtu ni Afya lessons are good for the family.

With the publication of this poem, the campaign passed out of the hands of the planners and into the hands of some two million Tanzanians enrolled in the radio study-groups. To all involved in the campaign, it became clear that something exceptional was happening, something significant not only for Tanzania but for people everywhere interested in the campaign approach to mass education. In turn, Kimwago's poem inspires this study.

The purpose of this study is twofold. The first aim is to describe and analyze in detail how the *Mtu ni Afya* campaign came about, how it was planned, what its underlying methodology was, and what impact it had. Second, the study examines the case for mass radio study-group campaigns as an integral and continuous part of national development strategies.

Discussion of the Tanzanian health-education campaign is based on my involvement as a member of the coordinating committee charged with responsibility

for evaluation. It also draws on an earlier evaluation of *Mtu ni Afya* published in June 1974 by the Institute of Adult Education in Dar es Salaam (Hall and Zikambona, 1974).

If only hints of the spirit and excitement that suffused this mass campaign experience survive my rough treatment, I will be pleased.

1

RADIO FORUMS AND MASS CAMPAIGNS IN OTHER COUNTRIES

The Tanzanian mass-campaign experience grew primarily out of two branches of communications development: radio farm forums and mass campaigns. The initial farm forums (begun in Canada in 1941) had built upon previous European experience with radio-listening groups (Rogers, et al., 1977). From Canada, rural radio forums had spread to India in the mid-1950s and to Ghana, Togo, and Dahomey in the late 1960s. Thus, Tanzania's *Mtu ni Afya* campaign had deep roots in experience with farm forums. The Tanzanian campaigns also reflect the influence of Swedish study circles. This later influence was seen particularly in the methodology and leadership-training used in small groups.

In its large-scale application and broad national political support, *Mtu ni Afya* had much in common with Cuba's literacy campaign and with China's campaigns to eliminate diseases in the 1950s. A parallel effort in South America also shared Tanzania's aim of increasing people's awareness of their potential control over their own situations. This emphasis on consciousness-raising emerged in northeastern Brazil in the early 1960s in the *Movimento de Educaçao de Base* (Basic Education Movement) described by de Kadt (1970) and analyzed and elaborated upon by Freire (1972).

This account of the Tanzanian health campaign opens with a brief explanation of how radio forums fit into the mass-media scheme. Then, campaigns run in other nations will be reviewed, and aspects pertinent to the Tanzanian experience will be pinpointed at the conclusion of Chapter 1.

RADIO FORUMS DEFINED

Rogers, et al. (1977) characterize the radio forum in one succinct paragraph:

> A *radio forum* is a small listening and discussion group that meets regularly in order to receive a special radio program, which the members then discuss. On the basis of the program and discussion, they decide what types of relevant action to take. This sequence of activities is expressed in the motto of the Canadian forums: "Listen, discuss, act." Emphasis in radio forums is usually placed not only on creating knowledge of new ideas, but also on putting them into practice.

Radio forums capitalize on the notions that multi-channel communication is more effective than single-channel communication and that the effectiveness of a multi-media approach tends to increase with the degree of disparity between the channels combined. Mass media, which enable one or several people to reach many, lie at the end of the communication scale opposite interpersonal channels,

which involve confrontation between individuals. Radio forums are said to combine the best aspects of these two extremes:

> Mass media alone can reach a larger audience at the price of a lesser message impact, while interpersonal communication provides a greater message impact at the price of a smaller audience. This inverse set of relationships lies at the heart of the particular advantage of radio forums (Beltran, 1969).

India's Rural Forums

The Indian experience with radio forums is the longest and best documented in the Third World.* In 1956, UNESCO sponsored an experimental program designed to test the usefulness of a radio farm forum of the sort developed in Canada (Nicol, et al., 1954). The original project provided for one radio forum in each of 144 villages. Following a detailed evaluation (Mathur and Neurath, 1959), it was recommended that the Indian government expand the pilot project. The expansion program began in 1959; by 1965, an estimated 12,000 groups were meeting (Schramm, et al., 1967).

About 20 people composed a typical Indian radio rural forum. Members were chosen by village officials to represent various factions within the village. Middle-aged people seemed to be favored, apparently because they are more apt than the young or the elderly to agree on issues (Bhatt and Krishnamoorthy, 1965). Groups met two evenings a week, listening to half-hour broadcasts on assorted topics and discussing them afterward. Of those registered, 75 to 80 percent attended meetings, and 65 percent participated actively in the discussions (Mathur and Neurath, 1959).

A conscious, though perhaps dichotomous, effort was made to keep the groups "non-political." As Bhatt and Krishnamoorthy (1965) point out, "In places where the president of the village and the group chairman are the same person coordination is made easier, but this is defective in that it brings village politics into the working of the forum and spoils the non-political atmosphere." But surely, by nearly anyone's definition of politics, any group expecting to discuss common problems, make decisions, and implement those decisions will perforce act in a political atmosphere.

Two major evaluations have been done of the Indian experience (Mathur and Neurath, 1959; Schramm, 1965). Together they raise several important points regarding the effectiveness and future usefulness of radio rural forums as educational tools:

- Integrating knowledge-transmission techniques into an overall program, the radio farm forum works far better than the simple distribution of radios to villages in the vague hope that villagers will profit from their presence.
- Within the groups, both literates and illiterates participated approximately equally.

*Useful surveys of the use of media in rural development are Dodds 1972 and McAnany 1973.

Table 1

COMPARATIVE RESULTS OF THREE EDUCATIONAL APPROACHES USED IN INDIA

	Forums	*Animation*	*Literacy*
Agricultural knowledge	*+ .32*	*- .31*	*+ .53*
Agricultural adoption	*+1.89*	*- .47*	*+ .30*
Health knowledge	*+ .12*	*+1.20*	*+ .48*
Health adoption	*+ .72*	*- .04*	*+ .42*

SOURCE: Adapted from Roy, et al. (1969)

- Tests showed the knowledge gain of group members to be more than double that of non-members.
- The group interaction drew out knowledge individual villagers had culled from experience and prompted them to share it.
- Despite conscious efforts to keep group discussions and activities non-political, the forums seemed to engender a broader based, more firmly rooted village democracy than elected councils could provide.

These findings correlate with research findings by Rogers and others on the effectiveness of various combinations of communication modes in increasing knowledge and encouraging constructive change. Mixtures of mass media and interpersonal transfer work partly because positive pressure to attend and to participate are exerted by groups.

Rogers bases his conclusions partly on research by Roy, et al. (1969) in which the effectiveness of radio forums, animation training, and literacy classes were compared. The results of Roy's research in India are shown in Table 1. Rogers points out the financial implications of this demonstration of the radio forum's superiority in stimulating change, a superiority that is all the more impressive when it is remembered that the total cost of the radio forum treatment amounts to about half that of the literacy treatment and about the same as that for the animation training treatment.

In his analysis of the Indian forums, Schramm (1965) isolates several lessons for development planners.

- The Indian village forums tended to attract people least in need of them (namely, the local elite).
- When initially high enthusiasm about the forums fell, average attendance decreased (corroborated by Ohliger, 1967).
- Programs should be localized as much as possible, with both planning and broadcasting decentralized.
- Forums can be effective, but not without extensive, continuous support—a need often underestimated.

Ghana's Steps Toward Self-Help

A pilot project in Ghana begun in 1965 and modeled on the Indian forums was inspired by a report on broadcasting and adult education (UNESCO, 1964). Sixty experimental forums founded in forty Ghanaian villages made up the initial experiment, which was well documented by Coleman, Opeku, and Abell (1968).

According to Coleman, et al., the forum plan called for reading study guides, using visual aids, listening to broadcasts, discussing all materials, and, finally, acting (the same pattern as was followed in the Indian forums). Program topics ranged from fertilizer loans to models for cooperative societies. Village lenders chose group members according to a fixed-quota system designed to reflect current age, education, and sex ratios in rural Ghana. The original groups comprised about 15 people each; by 1972, average forum membership had expanded to 25 (Dodds, 1972).

At the same time, the overall forum program also expanded steadily, and four hundred groups were operative by 1973. A critical feature characteristic of the Ghanaian forums is the practice of sponsoring communal activities (such as agricultural plots) that often earn workers income as they bring benefits to the community. Since the experimental phase showed the advantages of putting permanent printed materials in the hands of group members, later Ghanaian forums have been supplied with such materials.

During the experimental phase, consisting of twenty meetings and broadcasts in all, attendance for the members of all groups averaged fifteen (out of the possible twenty) meetings. Twenty-six percent of all participants attended every meeting, 51 percent attended between ten and nineteen sessions, and 23 percent showed up at fewer than ten. This attendance pattern may reflect recruitment policies—most people were simply asked to participate rather than accepted upon showing an interest—as much as the quality of the program itself. Since the experimental phase, however, membership restrictions have been eased and the popularity of the forums seems to have increased.

The forums in Ghana have been studied less systematically than have those in India. Nevertheless, the experimental project exaluation (Coleman, et al., 1968) makes several points of interest to development planners:

- To keep the forums going, an efficient organizational infrastructure of supervisors, transportation, and communication was essential.
- Villagers in radio forums appeared to learn between 10 and 27 percent more about and to act more frequently with respect to subjects featured in broadcasts than did villagers who studied outside of the forums. Unfortunately, no pre-tests were administered to either category of villagers, so this evidence lacks strength.
- More than 83 percent of participants said they would like the forums to continue.
- A number of rural forums reported to the Rural Broadcasting Unit that they had undertaken major self-help projects. Among these accomplishments were building and equipping medical dispensaries, constructing roads, establishing marketing channels, and introducing new farming methods.

MASS CAMPAIGNS THAT MOBILIZE LARGE POPULATIONS

Unlike radio forums, which are aimed at relatively small numbers of listening groups over an extended period of time, mass campaigns are meant to mobilize large numbers of people for a relatively short time. Radio forums hinge on group discussion and provide the opportunity for feedback to modify subsequent broadcasts. They depend on extensive organizational infrastructures to orchestrate the broadcast components, the production and dissemination of support materials, and the network of supervisors and teachers. During their long lives, radio forum projects may treat a broad range of development topics.

In contrast, campaigns tend to be more concentrated and to focus on a small number of related topics. Mass campaigns often rely on political mobilization as a base for stimulating widespread reflection and action on educational or health concerns. The communication strategy stresses mass media, including broadcast, print, billboards, and popular theater. The organizations that coordinate and bear these messages are temporary, but build upon the already existing personnel and resources of many permanent institutions.

Cuba's Literacy Campaign

In September of 1960, Fidel Castro declared to the UN General Assembly that Cuba planned "to launch an all-out offensive against illiteracy. . . . Within a few months, Cuba will be the first country in the Americas to be able to claim that it has not a single illiterate." The Cuban literacy campaign was officially launched on New Year's Eve of the same year and Castro called on the Army of Education to organize just as the National Militia had done. A number of thorough studies of the Cuban campaign from a variety of perspectives (Gillette, 1972; Fagan, 1964 and 1969; Jolly, 1964; UNESCO, 1965; Comision Nacional Cubana de la Unesco, 1962) all identify the twin goals of the campaign: teaching literacy and building political awareness.

Intentionally, the political aspect was intertwined tightly with the educational effort. As a mass communications model, then, the Cuban literacy campaign must be viewed as a whole, with full recognition of its political nature. The conscious political exercise enhanced the effectiveness of the literacy training, in which reading and writing were taught to the quarter of the Cuban population denied such instruction under the pre-revolutionary regime. Reciprocally, the spread of literacy skills quickened people's responses to the call for political commitment.

As a political institution, the literacy campaign resembled other Cuban programs in its emphasis upon citizen participation as a goal in itself. An editorial in *GRANMA*, a government newspaper, on the sixth anniversity of the Cuban Revolution said of the "new man" then emerging:

> This conception [of the new man] obliges the revolution to develop plans involving increased participation by the masses in the execution of diverse tasks . . . the masses will daily have to increase their participation in societal tasks, paying more and more attention to the management and direction of these activities.

The literacy campaign was clearly born of a spirit of development in which progress and change emerge when more and more people act in the collective, as opposed to individual, interest. These activities "wordlessly, but dramatically, teach the lessons of development and underdevelopment" (Fagan, 1969).

According to UNESCO, "the campaign was not a miracle, but rather a difficult conquest made through work, technique and organization" (1965). The Cubans set up a National Literacy Commission including representatives of the Ministry of Education, the Ministry of the Armed Forces, and mass organizations of workers, teachers, students, and others. At the heart of the crusade to teach 979,000 illiterates were more than 270,000 literacy workers from among at least four different groups:

- *People's Instructors*—120,000 adult volunteers who taught largely in cities and towns;
- *Conrado Benitez brigadistas**—around 100,000 young volunteers, mostly students, who in April 1961 began living and teaching in rural areas;
- *Schoolteacher Brigadistas*—37,772 regular schoolteachers who served primarily as specialists and supervisors during the campaign, working on it full-time after April 1961; and
- *"Patria o Muerte" Brigadistas*—13,016 urban workers who taught in rural areas while fellow workers filled in for them at their city jobs.

Castro's assertion that "revolution and education are the same thing" had perhaps never been better vindicated (Castro, 1961). By the end of 1961, the illiteracy rate had plunged from 27.7 percent to 3.9 percent (UNESCO, 1965), the lowest rate in Latin America and one close to those of the world's developed nations. Although many commentators have disparaged the quality of literacy in Cuba, the standards that apply in most parts of the United States—the ability to sign one's name, read a paragraph from a national document, or both—are far less stringent than the exam used to measure literacy in Cuba, which requires a reading level of about grade 4.

Although radio was not used to teach literacy in Cuba, it served well to "persuade the illiterate population to enroll, encourage widespread public support and attract volunteers and support, and spread technical aspects of the campaign" (UNESCO, 1965). From the time the campaign was three months old, the National Radio began broadcasting about fifteen spot announcements a day in support of the campaign. People wrote songs, jingles, and at least one whole book of poetry to celebrate the literacy drive.

The lessons of the Cuban experience reflect its dual goals. The technical and organizational points are overshadowed by the fundamental message that every development project is above all a political project. The campaign emphasized that development programs may be limited less by lack of human resources than by an inability to marshal the population.

*Named in the memory of a young literacy teacher killed by counter-revolutionaries.

Mobilizing large numbers of people on a national basis is a complex process in which the goals of increasing citizen participation and of imparting useful skills can be combined to great advantage. Development planners who restrict themselves to the narrow technical view, overlooking the broad political picture, cannot hope to match the sort of success achieved in the Cuban literacy campaign.

China's "Mass Line" for Health

Public health in the People's Republic of China has been a popular topic in recent years, both with the Chinese and with foreigners working in Chinese health services (Wu, 1975; Horn, 1969; Ma, 1966; Fu, 1959) and with visitors and observers (Chen, 1974; Rogers, 1974; Sidel and Sidel, 1974; Jain, 1973; Wegman, 1973; Faundes and Luukkainen, 1972). The accounts of both groups acknowledge the achievements of the Chinese in reducing the incidence of schistosomiasis (bilharzia), tuberculosis, and veneral disease (Horn, 1969) and in bringing down the annual population growth rate from about 2 percent in 1963 to about 1 percent by 1973 (Chen, 1973).

Of particular relevance to the present discussion is the series of mass preventive health campaigns the Chinese began in the early 1950s. For the most part, Chinese sources are cited in telling the story of these campaigns—in part because these sources present the campaigns from a Chinese perspective (placing them most precisely in their historical and political contexts) and in part because most commentaries by outsiders are merely fleshed-out explanations of Chinese primary sources.

Wu Chieh-ping begins a recent article in *The Partisan Review* on health and medical work with these words: "The mass line 'from the masses to the masses' is the fundamental line guiding all the work of our party. So it is with the health work" (1975). Characterized briefly, Chinese medical and health work gives priority to prevention and rural health measures, promoting the full involvement of peasants and workers in their own health care. Wu continues:

> The principle of "putting prevention first" therefore can be put into practice only by launching mass movements to give scope to the masses' enthusiasm politically and ideologically, constantly increasing their knowledge concerning science and hygiene and carrying out regular mass activities in health work.

Firmly established as the primary leadership principle of the Chinese Communist Party, use of the mass line has promoted a participatory and egalitarian political style "emphasizing popular creativity and a dynamic process of interaction between leaders and led" (Seldon, 1972). In 1943, Mao Tse-tung articulated the main features of the mass line in his paper *Some Questions Concerning Methods of Leadership:* "Take the ideas of the masses (scattered and unsystematic ideas) and concentrate them . . . then go to the masses and propagate and explain these ideas . . . translate them into action and test the correctness of those ideas in such action."

The idea of integrating health work into the mass-based organizations appears to have evolved out of experience in those regions that were won before the final victory of Communist forces in 1949. What have become periodic health campaigns date from the Korean War. Many Chinese were shown films of American pilots confessing to the use of bacteriological weapons in Korea, and the basics of germ theory were quickly brought home to millions. American actions in Korea as well as Japanese attempts to spread plague during World War II "aroused deep indignation in the Chinese people everywhere" and prompted the masses to extend aid to the government in anti-epidemic work and health work" (Fu, 1959).

The founding of the Patriotic Health Movement in 1952 reflected this new awareness of health matters. Focusing on tasks that could be carried out by individuals and groups at home and at work, the Movement urged the people to exterminate rats, flies, mosquitoes, and other carriers of infectious diseases; to clear garbage and litter; to improve the disposal and recycling of human excreta; and to upgrade the quality of water supplies. The Movement also led to inoculation and vaccination for over 25 percent of the Chinese people. The virtual elimination of flies has been one accomplishment noted repeatedly by Western visitors over the years.

Another frequently cited success has been the prevention of parasitic and endemic diseases. In his lucid account of health work in China, Joshua Horn (1969) describes in detail the anti-schistosomiasis campaign there. Particularly impressive is the story of Ren Tun village where at the time of liberation nearly everyone was infected with schistosomiasis. Not one child had been born in the village for the seven years preceding the liberation. Once the campaign to kill the snails that host the schistosomiasis blood fluke had been initiated, Ren Tun's population increased from 461 to 671 within fifteen years, and new cases of schistosomiasis there are rare.

Since the Great Cultural Revolution in 1967, health-care emphasis has shifted to rural areas while progress in prevention continues. Possibly the best known manifestation of the new health policies was the creation of cadres of "barefoot doctors," rural medical auxiliaries who have made great strides in developing effective rural services. Another feature of rural service has been the integration of all levels of health personnel: each local medical brigade comprises a barefoot doctor and a local committee of the Patriotic Health Campaign. To back up the local brigades, hospitals regularly send mobile health teams to visit rural villages. The teams' aims include:

- Providing preventive and curative services (especially preventive);
- Training local people as auxiliary medical personnel;
- Promoting the Party's policy of planned parenthood;
- Improving existing local medical services;
- Cooperating with the Patriotic Health Campaign; and
- Reaping from experience in the countryside a deeper understanding of the masses that can help team members better serve the task of building socialism (Horn, 1969).

Mass health movements sweep China several times a year, with most campaigns timed to precede national holidays. Movements may focus on indoor and outdoor

sanitation, on prevention and treatment of seasonal diseases, on improvement of working conditions, or on popularization of hygienic habits and physical checkups.

The mass line as applied to health work has been described by Ma Hai-teh, a member of a team that dramatically reduced the incidence of venereal disease in China, this way: "The mass line in medicine means that millions of people are getting an elementary understanding of what public work is all about and the important part every one of them plays in it" (1966). This approach to educating people about health clearly rests on belief in the intelligence, creativity, and strength of ordinary people. Creative involvement of every individual is deemed essential if health care is to be successful. As Wu Chieng-ping puts it, "Mass participation in medical and health work has proved that this work cannot possibly be done well without extensively mobilizing the masses and earnestly pooling their wisdom and drawing on their experience" (1975).

Demonstrating the high value they place on communication, the liberated Chinese began early to set up networks of local transmitters and public address and loudspeaker systems throughout the country (Schutman, 1969). In 1965, the central government spelled out three broad goals for the continuing expansion of rural broadcasting:

1. Each *hsien* (county) was to have one broadcasting station to be financed entirely by the central government;
2. Each commune and production brigade was to be allowed to have its own broadcasting station for which the commune or brigade could, according to its needs, receive partial subsidy from the central government;
3. Any household in the village was to be permitted to have a radio-speaker for which an installment fee of four dollars was to be charged (Lee, 1972).

Besides relying on radio coverage, nearly all Chinese campaigns make wide use of discussion groups or forums. The groups receive from the government written materials relating to the campaign, and local Party cadres usually supply the discussion leaders. Group sessions stimulate two-way information flow between cadre members and group participants. Films, slide shows, and opera are also employed in campaign efforts. In addition, large-character wall posters made by workers, students, and peasants are sometimes used to convey the messages of the campaigns.

SYNTHESIS

The rural forums of India and Ghana focused chiefly on communication techniques. (Since these forums were developed under the auspices of the UNESCO Mass Communications Division, the technical emphasis is not surprising.) The multi-party system in India made for a range of theories about social change that spanned from far left to far right policitally, and the forums there deliberately were planned to be "non-political." In contrast, planners of the massive campaigns in Cuba and China consciously mobilized the population to enact practical changes and at the same time to build political awareness and participation. Degrees of

national commitment differed sharply between India and Ghana on the one hand and China and Cuba on the other. The Chinese and Cuban leaderships regarded direct improvement in the quality of life of the masses as a crucial national priority calling for a large-scale national effort. In India and Ghana, however, the rural forums were relegated to relatively minor roles in overall development strategies.

Similarities and differences among these campaign experiences yield lessons of use both in evaluating the programs in Tanzania and in expanding general knowledge about how mass study-group campaigns operate. At least five important points seem to emerge from these experiences:

First, *the narrower a program's theme, the greater its likely impact.* The Indian and Ghanaian forums were umbrella-like projects that tried to cover a scattered multitude of rural concerns. Broadcast topics changed nearly every week and ranged from advice on immunization to the use of fertilizers to reasons for forming farming cooperatives. Conversely, the Cuban and Chinese campaigns concentrated on a smaller number of ideas over a greater amount of time. Groups had ample chance to respond to the ideas presented and to acquire the facts necessary to discuss them in detail. Media coverage was naturally more thorough, and spending a relatively long period on a single subject seemed to allow interest to grow among individuals not initially involved.

Second, *an efficient organizational infrastructure is essential to keeping rural forums and campaigns going.* Studies of experiences in all four countries stress that a tightly knit network of supervision, transportation, and communication is vital—yet often underestimated.

Third, *forums and campaigns can accommodate literates and illiterates alike.* This point is of import to educators, especially to those concerned with balancing rural development. (In the past, rural adult-education programs have tended to rely heavily on print as a means of communicating; of course, the benefits of the programs have fallen mostly to those who have had some schooling. Literacy has frequently been required for entrance into farmers' training centers, and adult-education classes are often tracked according to years of schooling or levels of literacy.) In India and Ghana, people who could read got along fine together in media forums with those who could not.

Fourth, *the force of a media forum alone cannot usually stir basic attitudes and instill change.* Although the Indian forums met with some success, results were far from stunning (see Table 1). Results in Ghana were similarly unimpressive. Practiced in political isolation as it was in India and Ghana, the forum method did not significantly affect rural environments. Indeed, comparing Indian and Chinese family planning experiences, Rogers declares, "Communication alone can do little to change attitudes" (1974). Something more is needed.

Finally, *public participation and political support strengthen development programs.* Media forums and other development-support strategies need not operate in a vacuum. Cuba (in literacy work) and China (in preventive medicine) have managed to integrate development and political action. In China, for example, participation means group planning of births and consequent success in family

planning. Further, rural economic and political structures in China enable communes to provide each person with a nutritional diet as well as a say in decision-making. In both Cuba and China, overtly political campaigns have called for the involvement of the masses, especially the rural masses. In both countries, development crusades are part of more far-reaching travels toward socialism.

The media and campaign experiences described briefly here offer still other messages to planners. One is that linking media forums with an ongoing organizational infrastructure is critical—a point that this study's account of planning for the Tanzanian health campaign brings out. But the two most fundamental lessons are plain enough. The first is that the media forum is a communication approach that can lead to action. The second is that political support and popular involvement are the keys to truly effective programs.

2

EVOLUTION OF RADIO STUDY-GROUP CAMPAIGNS IN TANZANIA

Development means the development of people, not things.

Julius K. Nyerere

> Development means liberation. Any action that gives (the people) more control of their own affairs is an action for development even if it does not offer them better health or more bread. Any action that reduces their say in determining their own affairs or running their own lives is not development and retards them.
>
> *Tanganyikan African National Union*

The radio forums of India and Ghana were conceived and conducted in a relatively neutral political climate quite unlike that in which the Cuban and Chinese mass campaigns were carried out. Such political neutrality is naturally foreign to Tanzanian nationalism, which is based on a clearly articulated set of development policies that guides all plans and gauges the measure of every new idea. Indeed, the "Man is Health" campaign was the culmination of extensive experimentation and evaluation by various Tanzanian agencies and ministries working to develop effective educational strategies that serve well-defined national objectives. Had not these experiences—the subject of this chapter—paved the way for *Mtu ni Afya*, the campaign would no doubt have been much less successful than it was.

As its President Julius K. Nyerere has explained, Tanzania possesses four principal resources: land, leadership, ideology, and people (Nyerere, 1967). Independent development means relying as far as possible on internal resources. Translating this idea into development strategy, Tanzania grants top priority to rural and agricultural concerns via socialist forms of organization.

In initiating its transition to socialism and taking steps toward rural development, Tanzania has mounted several programs and policies that bear directly on the development of mass education campaigns.

Decentralization of government and official encouragement of popular participation. TANU, Tanzania's single political party*, and the Tanzanian Government see these policies as functionally reciprocal and politically essential. Decentralizing ministries from national to regional levels has, it is hoped, made government more responsive to local needs and more supportive of small-scale projects. In turn, it is hoped that people find these regional and district government units more accessible than big centralized bureaucracies. Localized development

*TANU stands for Tanganyikan African National Union, which was originated prior to the 1963 union of Tanganyika and Zanzibar. In 1977, TANU was merged with Zanzibar's political party to form the Revolutionary Party (*Chama Cha Mapinduzi*, or *CCM*).

committees, the majorities of which are not civil-service employees, join with elected management committees from the cooperative (*ujamaa*) villages to plan programs and formulate policies. Planners also envisage the day when strong workers' councils will exist and when workers will direct the partially state-owned productive units (Green, 1974).

Establishment of ujamaa *villages.* By the end of 1974, at least 7,500 cooperative villages had been set up to accommodate around three million people representing roughly 30 percent of the agriculturally self-employed (Green, 1974). In these villages called *ujamaa*, the Kiswahili word for the spirit of socialism, rural people who traditionally have been scattered in extended family dwellings gather together.

Focus of financial priority on ujamaa *villages and rural programs.* Since 1967, Tanzanian ministries and organizations have gradually turned their attention to rural services. The national libraries, for example, have put most of their money into rural library services; similarly, within the Ministry of National Health, emphasis has shifted from urban-oriented curative medicine to rural-centered medicine, both curative and preventive.

Alteration of formal school structures. Shortly after the Arusha Declaration was issued in February of 1967, *Education for Self-Reliance*, the major educational policy statement, outlined radical changes in the concept of the school. As part of this redirection in the national interest, a call was issued for village schools to become true community schools. Newly integrated into the social and economic life of the community, schools were to emphasize rural activities and other interests of the permanent majority, rather than those of people likely to leave the village after passing their examinations.

Establishment and support of outreaching adult-education programs. Attempts to reach as many Tanzanians as possible with increased adult-education services are an integral part of strategies to increase participation in decision making and to reduce the gap between urban and rural incomes. Adult Education Year was proclaimed in 1970, and it brought the consolidation of adult education within the Ministry of National Education and the foundation of an adult-education network that now includes more than 2,000 officers.*

Through these and other means, Tanzania is working toward a special sort of socialism, the goal of which is perhaps best expressed by Nyerere (1967):

> The objective of socialism in Tanzania is to build a society in which all members have equal rights and equal opportunities; in which all can live in peace . . . without suffering or imposing injustice, being exploited or exploiting; in which all have a gradually increasing level of material welfare before any individual lives in luxury.

Committed to popular participation, Tanzania has broken off sharply with policies in force during its colonial and early post-independence periods. It has taken the

*For more information, see Tanzanian Ministry of National Education, 1974.

view that new national consciousness cannot live except in the nation's people and that education is a key to making the transformation to socialism. The process has begun.

TANZANIA'S FIRST RADIO STUDY GROUPS

Radio-listening groups arose independently in Tanzania in two institutions at opposite sides of the country at about the same time. In Moshi, a town near the northeast border, the Cooperative Education Centre (CEC) was founded in 1964 to meet the educational needs of local cooperative societies. The CEC soon perceived that its purposes could not be achieved solely or even mainly by face-to-face education methods, and so began to experiment with simple correspondence study-letters. Since most Tanzanian villagers participating in the courses have had no formal schooling, printed materials can be truly useful only if literate members of cooperative groups read them aloud to their illiterate colleagues. Accordingly, the CEC sought to support and enliven these cooperative courses by using radio programs to present essential ideas and information orally.

The study groups themselves were modeled to a large extent on the study circles common in Swedish labor and cooperative educational projects. The CEC's first radio/correspondence study-group program addressed the needs of cooperative societies and began in 1967. A series about the work of committees in general followed a year later. By the end of 1968, more than 400 groups had registered in at least one of these courses.

In Mbeya, a region in Tanzania's southern highlands, a similar experiment was launched by the Institute of Adult Education (IAE) of the University of Dar es Salaam (then called "University College"). Since 1964, the IAE had concerned itself increasingly with experimentation, research, and services related to adult education of all kinds and at all levels. Regional IAE offices, each one serving several regions, tried to fill increasing numbers of requests by villagers (by school-leavers in particular) to run classes in remote villages and towns where qualified teachers and tutors could not be found. Under mounting pressure, IAE planners in Mbeya soon saw the economic impossibility of answering all demands for education with traditional classroom instruction. They proposed an experiment using radio study-groups as a possible solution to this dilemma. Canada's farm and civic radio forums of the 1940s served as models, and each of the three subjects—English, civics, and agriculture—chosen for the experiment was expected to attract a different group of people. The IAE picked fifteen experimental groups from the members of the recently developed network of local adult-education associations. The radio programs, either imported or prepared locally by the IAE office, followed a simple format and were broadcast by the Adult Education Service of Radio Tanzania.

The Mbeya project was a trial in more than one sense. It was plagued by numerous problems, some serious and some that should have been foreseen. A few examples will serve. The radio programs were broadcast on the medium wavelength. Reception was frequently poor in the pilot areas, particularly where bad weather prevailed. (The project overlapped with the rainy season in one of

Tanzania's wettest regions.) The English and agricultural courses were broadcast in English. Experience in traditional school settings had suggested that the average member of the target audience (e.g., primary school teachers, government and cooperative officials) knew enough English to understand the programs. But the disembodied voice alternately crackling and fading over the radio presented a linguistic challenge more formidable than the mere comprehension of face-to-face speech. Tony Dodds, who recorded programs for the civics series, recalls listening to a program with one of the study groups. As a rainstorm raged, the program faded completely away; finally, Dodds stood up and delivered the rest of the program in person, word for word. Comprehension rose instantly.

Other aspects of the IAE's experience in Mbeya revealed ample room for improvement in the radio programs, in the supporting printed materials, and in the general organization of the project. Yet all fifteen groups did last until the end of the project, which suggests that an economical combination of teaching methods such as that used is a viable approach to adult education.

Tanzania's second Five Year Development Plan—the first plan to reflect the choice of a socialist road to development that had been voiced in the 1967 Arusha Declaration—appeared in 1969. Economics and the economic options open to the people of Tanzania were the themes of political and educational development programs held throughout the year. The Cooperative Education Centre and the Institute of Adult Education planned to expand the approaches to radio study-group campaigns, and both institutions chose economics as their topic.

At that time a popular version of the Five Year Development Plan, scheduled for publication in both English and Kiswahili, had already been drafted by the Tanzanian Government, and the IAE decided to plan its next campaign around the popularized Plan. IAE developed a study guide designed to lead groups through the Plan, to pose discussion questions, and to suggest supplementary study activities. It also devised an accompanying radio series intended to accent practical illustrations and individual interpretations of the main points of the Plan. At the same time, IAE's northern and southern offices each held a training course for group leaders. Around 50 groups enrolled, more than half of them located in areas covered by the two offices, including some villages near Mbeya that had been involved in the pilot project run two years before.

Communications problems—both organizational and educational—plagued the Five Year Development Plan campaign from its outset. Neither the national headquarters nor the local offices of key institutions were briefed about the project in its early stages, and so they did not endorse or participate in the campaign. Moreover, the study guides and printed information meant to help group leaders and members discuss complex issues of national economy were neither easy to use nor attractive. Both radio programs and study guides failed to provide groups with local examples of the policies outlined in the Plan, even though such examples were essential in helping members see how the Plan's generalities could become personal realities.

Armed with these and other insights, the Institute planned its next campaign.

UCHAGUZI NI WAKO ("THE CHOICE IS YOURS")

Anticipating Tanzania's 1970 parliamentary and presidential elections, the IAE brought up the possibility of holding a national election study-campaign. The first campaign with a national theme, *Uchaguzi ni Wako* ("The Choice is Yours") was to include radio programs, a printed study guide in Kiswahili, and organized listening groups guided by trained leaders. Joining the IAE on the planning committee were representatives from TANU, the Political Science Department at the University of Dar es Salaam, and the Electoral Commission. The Institute also worked closely with the newly constituted adult-education section of the Ministry of National Education. These involved organizations not only helped to produce the campaign materials but also to recruit and supervise the listening groups.

The campaign had two goals. The first was to describe the machinery of government—how the Parliament and local councils work, what the President does, how election campaigns are run, and how votes are cast. The second aim was to stimulate discussion among the people about the meaning of this machinery and about the duties and responsibilities of the elected representatives.

From campaign experiences in Tanzania and elsewhere, planners knew that the role of study-group leaders would be crucial to the success of *Uchaguzi ni Wako* and that the leaders would need some initial guidance. A series of short training courses gave prospective group leaders a look at the materials as well as practice in various leadership techniques. The training courses also served as the major medium of publicity.

This emphasis on training leaders proved well placed. Nearly every one of the seventy groups that reported was guided by a formally trained leader. (That more than ninety additional known groups did not report reflects the difficulties of getting representative impressions and other feedback in written form.) This campaign showed that success in establishing groups throughout a wide geographical area hinges on organization and on training of group leaders. These lessons were carried over to the next campaign, which was to be national in scale as well as in theme.

WAKATI WA FURAHA ("TIME FOR REJOICING")

The Institute of Adult Education centered its pilot study campaigns of 1969 and 1970 on major national events. In 1971, Tanzania's tenth anniversary of independence was the natural choice of subject for the IAE's next and most ambitious radio study-group campaign.

The new campaign combined education with celebration. One objective was to deepen Tanzanians' sense of nationhood. Tracing Tanzania's history and highlighting national achievements since Independence would give the people reason to see December 9, 1971, as truly a "Time for Rejoicing"—*Wakati wa Furaha*.

Another goal was to expand the radio study-group campaign into a nationwide exercise.

Planning and Organization

In the study campaign on the election in 1969, study groups were formed in every region of the country, though most of the 1,600 groups grew up in clusters around the IAE offices. In the 1971 campaign, planners aimed for more nearly total national representation (encompassing at least a thousand groups). As it had been in the previous campaigns, the cooperation of numerous institutions was deemed essential. In particular, the Cooperative Education Centre had been planning its own Independence celebration program, and it agreed to coordinate its plans fully with those of the IAE. The CEC's organizational structure, along with its reported 1,200 study groups (extensions of the 400 Moshi groups) became an integral part of the campaign.

Planning began nearly ten months before the first scheduled broadcast, and a detailed schedule for intensive preparations was mapped out. With so many agencies (the University of Dar es Salaam, the Ministries of National Education and Rural Development, TANU, and the cooperatives) involved, balancing multiple inputs with production efficiency became a primary consideration.

Study materials for group members were three: a series of radio programs, a Kiswahili textbook, and a study guide. The radio programs and the accompanying textbook chapters were coordinated only loosely; the text was designed to serve as a permanent source of background and factual detail and was written to be read aloud, whereas the radio programs were meant to stimulate discussion, to illustrate the campaign premises, and to authenticate the whole effort.

Each of eight half-hour radio shows began with fifteen minutes devoted to music, answers to questions sent in by groups, and announcements from the campaign organizers. During this "gathering time," groups had a chance to assemble, settle down, and tune in. Production of these topical openers was done toward the end of the planning period, after the study segments—the second halves of the programs—were complete.

Besides the textbooks and study guides supplied to group members, a manual for study-group leaders covered general questions of leadership (how to conduct meetings, the duties of the leader, and so on) and provided practical hints (including references to the textbooks and the study guide) for running individual meetings.

Evaluation and Results

Of all the items in the campaign evaluation, the measure of knowledge gain was held most critical. Table 2 lists components of the planned project evaluation. A ten-question test was designed to be administered by campaign organizers to a sample set of groups both before and after the campaign. Fifty groups in ten different areas were chosen for testing. Most groups included some illiterates, for whom the test

Table 2

CAMPAIGN EVALUATION PLAN: WAKATI WA FURAHA

INFORMATION SOUGHT	*MEANS*
Cost per participant	*Campaign accounts*
Description of group-leader training seminars	*Training reports*
Reactions of participants to training seminars	*Group-leader trainee reaction forms*
Demographic data	*Class registration forms*
Attendance rates	*Class registration forms*
Geographical distribution of groups	*Group registration forms*
Knowledge gained as a result of the campaign	*Pre-tests and post-tests administered to selected groups*
Obstacles to organized group study	*Evaluation seminars, questionnaires completed by district education officers who supervised the groups*

was administered orally and privately. Literate participants filled in the answers themselves.

Convinced that well trained study-group leaders are indispensable, planners of *Wakati wa Furaha* provided for the training of at least 1,000 leaders from all over Tanzania. Together, the IAE and the CEC developed a two-stage training program. The first step was to teach organizers of adult-education activities how to train study-group leaders. For this the CEC, at the time more experienced than the IAE in running study groups, made good use of its existing structure. The second step in the group-leader training scheme was carried out by the district adult-education officers themselves (through the generosity of the Ministry of National Education) as they trained the study-group leaders and organized the campaign in their areas. First-stage seminars were held in six locales to introduce the district adult-education officers to the ideas and techniques of the study-group method.

Characteristics of the study groups

Group membership ranged from 3 to over 200. Rates of attendance, calculated on a group basis, were seen as indicators of general interest in the subject and methods of the campaign. Indeed, the only sure measure of the campaign's impact was the number of group members attending meetings regularly. The average group attendance rate nationwide was 65 percent, nearly twice the norm for classes in adult-education centers (33 percent).

In previous, smaller-scale campaigns, the main distribution of listening groups had been limited to two or three regions. In contrast, *Wakati wa Furaha* ran cross-country. Groups filled out registration forms in 42 of Tanzania's 65 districts.

The ratio of men to women in the groups varied widely from district to district. For the campaign overall, the ratio was 62 percent men to 38 percent women. Surprisingly, this ratio is almost the reverse of the attendance pattern for classes run by the Ministry of National Education, which are attended by about twice as many

women as men. No single age group predominated among the participants; ages ranging from 16 to 40 were represented about equally.

Most of the participants, 68.4 percent, had no more than four years of schooling, and only 13.6 percent had completed more than seven years. Hence, the campaign seems to have reached the intended audience. Figures on the occupations of the group members confirm this assumption: 72 percent were farmers, 13 percent were civil servants or clerks, and 7 percent were teachers. (All other occupations totaled 8 percent.)

A major strength of the radio study-group method is its ability to use talents of those who are neither highly educated nor highly experienced. Group leaders need not be teachers, but simply literate citizens trained in group leadership techniques. Of those who became group leaders, 92 percent were men and 8 percent women. The mean age of the leaders was 30 years, with the highest percentage of ages falling in the 21- to 25-year-old range. Teachers were the largest occupational group among the leaders at 47 percent, with farmers following closely at 40 percent. Such other occupational categories as TANU officials, office workers, artisans, and civil servants made up the remaining 13 percent. The large proportion of farmer-leaders particularly surprised campaign organizers, who had expected a much heavier representation of primary-school teachers and voluntary literacy teachers.

As for education background, 28 percent of the group leaders had four or fewer years of schooling, 55 percent had from five to eight years, and a remarkably small proportion—only 17 percent—had more than eight years. Thus, leaders were not significantly better educated than group members, 13.6 percent of whom had completed more than seven years of school. The lack of a larger educational gap between the leaders and the group members led in the context of such a successful project supports the notion that leaders of radio study-groups can be solicited at large from the population to be served.

Results of the knowledge-gain test

Of all the phases of the campaign evaluation, gauging knowledge gain proved the most difficult. Initially, 50 groups (5 from each of ten districts) were selected for testing; in the end, only 17 groups, together comprising 97 members, had submitted results of both the pre-test and the post-test.

These 17 groups scored from 20 to 100 percent on the pre-test, with 72 percent the mean. Post-test scores ranged from 50 to 100 percent, with a mean of 83 percent. The difference between the means, 11 percent, rates 4.62 on a "t" statistical test, and is significant at better than the .01 level. From this it can be safely concluded tht the increase in scores between tests cannot be attributed strictly to chance. In terms of individual progress, 49 people did better on the post-test of knowledge gain, 38 made the same score, and 10 fared worse on the post-test than on the pre-test. Although not spectacular, the 11-percent overall improvement in performance is incontrovertibly positive. Considering the average group had 65 percent attendance and met for six out of ten 90-minute sessions, the level of improvement seems respectable. Unfortunately, no control group was formed for purposes

of comparing campaign methods with the traditional classroom approach to learning.

Campaign Costs

The evaluation of the cost of the campaign was intended to determine both the total cost and the distribution of costs across a number of categories. In this sort of campaign, many of the expenses are absorbed by participating agencies, and estimates must suffice in lieu of more precise figures. The Institute of Adult Education was the principal organizing agency and as such incurred the bulk of the expenses. The Cooperative Education Centre helped distribute materials and set up seminars. The district adult-education officers conducted most of the second-stage group-leader training, distributed a great deal of material, reproduced the report forms, and supervised study groups in their areas. Many of these duties fall within the normal range of responsibilities for adult-education officers in Tanzania, and so expenses for some services were not included in the cost evaluation.

Estimated campaign expenses are listed in Table 3. Not included are the salaries of the IAE staff members involved (who would have been paid whether they worked on the campaign or not). Nevertheless, planners of future campaigns take note: the staff commitment to the campaign was considerable and essential. The work of planning, production, distribution, supervision, and evaluation for *Wakati wa Furaha* adds up to roughly 40 person-months. At any given time during the ten months, two to eight staff members were working full-time on the campaign.

The costliest item in the campaign was publicity. The cost of printing the posters, an expense carried by the Ministry of Agriculture, by itself represented nearly 40 percent of the total budget—a particularly hefty share in view of the fact that the impact of the posters turned out to be negligible since most of them were still

Table 3

ESTIMATED CAMPAIGN EXPENSES: WAKATI WA FURAHA

EXPENSE CATEGORY	*Tz shillings*	*U.S. dollars**
Production of study materials	*5,919.75*	*829.10*
Publicity	*34,168.75*	*4,785.54*
Training of group leaders		
Stage I	*8,618.00*	*1,207.00*
Stage II	*31,272.90*	*4,379.96*
Evaluation	*1,654.75*	*231.76*
TOTAL CAMPAIGN EXPENSES	*81,634.15*	*11,433.36*
Per capita costs (for 20,000 people)		
Leader trainee, Stage I	*86.00*	*0.12*
Leader trainee, Stage II	*17.00*	*0.12*
Study group member	*4.08*	*0.50*

**1.00 U.S. dollar equaled 7.14 Tz shillings at the time of the campaign.*

stacked in agricultural extension offices when the campaign ended. Distribution of the textbooks and study guides also proved to be problematic and expensive. The campaign textbook was designed and edited by IAE and printed by the East African Literature Bureau. The estimated unit cost of the books was 4.25 Tz shillings (about U.S. $0.60), and a total of 2,000 copies was run. This cost could probably be reduced to about one shilling a copy in future campaigns by simplifying the format, cutting the number of pictures, and printing the books on cheaper paper.

Conclusions

Wakati wa Furaha had many weak points. Delays in the distribution of texts and study guides definitely damped the campaign's impact: over half the district adult-education officers reported that they had not received their copies before the opening of the campaign, and a few never did receive materials. In contrast, few cases were reported of groups hampered by lack of radio sets. Radios seem to be well distributed in rural Tanzania, and volunteers who own radios can probably be depended upon to share them in future campaigns. It also became clear that groups would have to be better organized and more closely supervised in later campaigns.

Despite these difficulties, the *Wakati wa Furaha* campaign achieved an impressive measure of success. Interest was aroused on a national scale; study groups were established all over the country to encompass about 20,000 members, and letters are still received from citizens on the subject of the campaign. In addition, the audience reached was the audience the campaign's planners had in mind—rural people whose need for education was greatest.

The training of group leaders also went well. Never before had a two-stage training program been tried in Tanzania, and organizers naturally worried about the distortion of information between the first and second stages of training. Indications of the success of training efforts were the high rate of return of registration forms and the accuracy with which most of the somewhat complicated attendance forms were filled in. These and other signs indicated that training messages came through loud and clear to the second-stage trainees, the individual group leaders.

Finally, *Wakati wa Furaha* was a triumph for the radio study-group campaign as a learning method. The evaluation turned up positive evidence that people do learn from such campaigns. The statistically significant improvement in test scores strongly implies that at least some aspects of Tanzania's progress in the ten years since it became independent are now well understood by the people. It also provides an index for measuring the success of future campaigns.

3

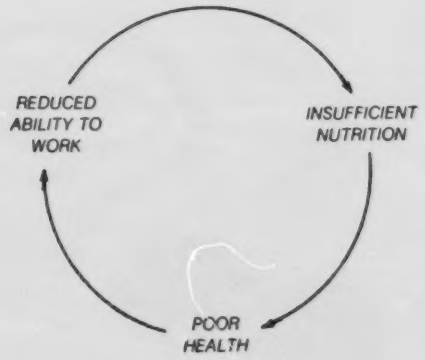
MTU NI AFYA *("MAN IS HEALTH"): PLANNING, ORGANIZATION, AND TRAINING*

The enthusiasm remaining among rural people in the wake of *Wakati wa Furaha* was convincing evidence that the radio study-group campaign as an approach to education warranted still greater efforts. Nearly 20,000 people had taken part in the "Time for Rejoicing," learning about and discussing their country's goals and progress in the decade since Independence. Never before in Tanzania had so many been reached at so small a cost.

Since *Wakati wa Furaha* had expanded the campaign method to a national scale, the next step was to launch a mass campaign that would test the limits of the mass media link-up with study groups. The new campaign was to be a step forward in another sense; it was to represent a move from abstract learning to action that would directly affect the quality of life in rural Tanzania. Following considerable discussion among ministries, organizations, and individuals, a new theme was chosen: community health, with an emphasis on preventive medicine.

Several considerations figured importantly in the decision. First, planners were aware that three-quarters of mainland Tanzania's two million people lived more than 10 kilometers from the nearest hospital (a two-hour walk for a healthy person), and that a fifth of the population lived still farther from any hospital, rural health-center, or dispensary (Thomas and Mascarenhas, 1973). Since curative health services were far from adequate, efforts by the people themselves to prevent disease could thus make a dramatic difference.

Second, numerous diseases less dreaded and debilitating but far more widespread than leprosy and smallpox were seen as major impediments to happiness and to social and economic development in rural Tanzania. Of these, tuberculosis, malaria, schistosomiasis (bilharzia), hookworm, dysentery, and other water-borne diseases were chiefly responsible for keeping in motion the vicious cycle illustrated below (Tanzanian Institute of Adult Education, 1972).



What these diseases have in common, the Ministry of National Health pointed out, is a susceptibility to preventive measures that include various practicable environmental changes.

Third, increased movement of people from scattered dwellings to *ujamaa* villages was afoot. These confluences of people from various isolated locations created fertile environments not only for the spread of disease, but also for organized health-education on a large scale. By the end of 1971, according to the Ministry of Rural Development, some 4,000 *ujamaa* villages housed an estimated 750,000 adults. These *ujamaa* residents were already familiar with functional literacy classes and other adult education activities.

Finally, the theme of health education seemed to jibe nicely with the intended emphasis on action. A preventive-medicine campaign could truly put knowledge into practice. And many of the recommended environmental alternatives the campaign would focus upon—building latrines, for instance—would be ideally suited to group action.

The Ministry of National Health had good reason for choosing to treat in the campaign the specific diseases listed above. All were widespread geographically, and their incidence within the total population was high. Malaria, for example, accounted for 10 percent of all hospital admissions and for 7 percent of all deaths. As for tuberculosis, an estimated 150,000 cases in 1973 were expected to give rise to 30,000 new cases a year (Gish, 1973). Collectively, infectious and parasitic illnesses plagued one-third of all hospital patients and caused one-third of all hospital deaths each year.

PLANNING AND ORGANIZATION

Campaign Aims

The new campaign, named *Mtu ni Afya* ("Man is Health"), had three aims:

1. To increase people's awareness of how they can make their lives healthier and to encourage both groups and individuals to take appropriate action;
2. To provide clear and simple information about the symptoms of specific diseases and their prevention; and
3. To encourage those who had participated in the national literacy campaign to maintain their skills by reading campaign materials designed especially for the newly literate.

As mentioned earlier, breadth of scale and emphasis on action distinguished *Mtu ni Afya* from the campaigns preceding it. In identifying the campaign's prospective participants, planners first accounted for the needs of the 750,000 adults living in *ujamaa* villages, where communicable diseases constitute a much greater threat than in more scattered communities. Added to this main group were some 250,000 adults living in the six Tanzanian districts in which the national literacy campaign

was spearheaded in 1971. This overall target of one million people amounted to fifty times the number reached in the immediately preceding campaign.

In *Mtu ni Afya*, action was to take the form of intensive efforts by groups and individuals to make physical changes to foster better community health. Promotion of communal action was to be a fundamental ingredient of the radio programs, the printed materials, and the training.

The integration of *Mtu ni Afya* with national literacy efforts was its third departure from previous campaigns. The Ministry of National Education's literacy campaign, begun in six districts in 1971, had within two years become the major activity of the national adult-education network.

Thousands of people were becoming literate, but they had little to read. The texts for *Mtu ni Afya* were therefore geared, in terms of both format and vocabulary, to the newly literate.

Campaign Timetable

An informal follow-up meeting held by the IAE staff in mid-January of 1972 to discuss *Wakati wa Furaha* marked the beginning of planning for the national health campaign. At subsequent major meetings, representatives of the health, agriculture, and education ministries, as well as members of TANU and the Cooperative Union of Tanzania, planned together. By late April, the Ministry of National Health had first drafts of the campaign textbooks ready.

Despite this swift initial action, the planning process was lengthy. As shown in Figure 1 (which begins with the sixth month of planning), sixteen months of intensive planning, production, distribution, and training took place between the campaign's initiation and the first radio broadcast in May of 1973.

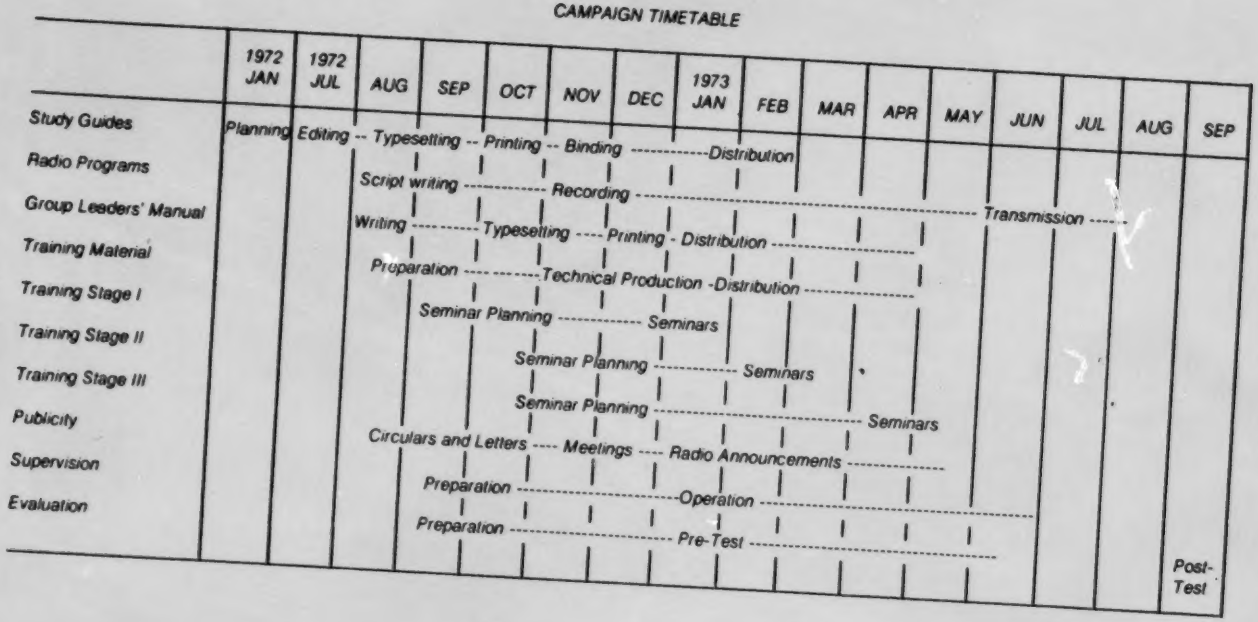
The previous campaign had taught planners to allow ample time to prepare and distribute all printed materials prior to the opening of the group-leader training seminars. Distribution of texts, study guides, and leaders' manuals was to be done through the training seminars.

The twice-weekly broadcasts of the twelve radio programs, the first on May 14 of 1973 and the last on August 5, were carefully timed as well. Planners strove to avoid major planting and harvesting times and to complete the sequence of shows before Ramadan, when many of the substantial portion of the nation's population who are Muslim fast during the day and cut down on activities outside the home.

Other early preparations for the campaign included drafting final project proposals that were submitted for approval to the University of Dar es Salaam, the Ministry of National Education, the Ministry of National Health, and the Treasury in May of 1972. In addition, a request for 1,450,000 Tz shillings (U.S. $210,000) was submitted in late June to the Swedish International Development Authority, and the title for the campaign, *Mtu ni Afya*, was approved at the first formal meeting of the National Coordinating Committee in mid-August.

Figure 1

CAMPAIGN TIMETABLE



National Coordination

A campaign of the scale of *Mtu ni Afya* would have been impossible without inter-ministerial cooperation and coordination. To be sure, mass campaigns depend heavily on field organization, and no single ministry is equipped to carry out all phases of a mass campaign.

In an exercise of foresight that proved critical to the success of the campaign, the IAE and cooperating ministries placed responsibility for continual coordination and direction of the campaign in the hands of the newly created National Coordinating Committee. Chaired by the director of the IAE, this Committee decided at its first meeting, on August 8, 1972, that its primary duty was "to keep all parts of the scheme under constant review, to anticipate problems, to propose solutions and to ensure the smooth working of the whole scheme."

The Coordinating Committee also made some tactical decisions at its first meeting. It determined, for example, that those Committee members concerned with producing textbooks and radio programs would meet once a month early in the campaign and more frequently when the training seminars were being organized or when other activities demanded additional sessions. The use of large wall charts marking principal campaign deadlines (one for the campaign overall and other more detailed charts for the various phases) kept staff members up to date and averted several potential crises (Barrett, 1976).

Allocation of Responsibility

Responsibilities among the cooperating agencies shifted somewhat during the course of the campaign. The allocation of duties as it stood at the campaign's end is outlined in Figure 2.

Mobilization and Publicity

The build-up of the *Mtu ni Afya* campaign entailed both advertising and grassroots organizing of the sort that characterized the mass campaigns conducted in Cuba and China. Campaign planners saw mobilization and publicity proceeding in three overlapping phases: informing governmental and political leaders about the campaign and the role they could play in it; mobilizing Tanzanians on a mass basis to get potential group members and group leaders into the act; and keeping up momentum through well-timed bursts of publicity throughout the campaign.

Capturing the interest and support of senior political and governmental leaders was considered fundamental in the Tanzanian context and was thus begun earliest. The National Coordinating Committee arranged meetings in various divisions of the participating ministries and of TANU; at the meetings, full details of the campaign were discussed and various departments were asked for their individual support. Busy civil servants with stacks of unread reports already heaped atop their desks received succinct, one-page information sheets that stressed the scope and the

Figure 2

ALLOCATION OF RESPONSIBILITY

National Ministry of Health, Health Education Unit
Content of textbooks and radio programs
Production of radio programs
Assistance from health-education personnel in recruiting, training, distribution, and supervision

Ministry of National Education, Adult Education Directorate
Overall organization of recruitment of group members and leaders, distribution of materials to groups, training of group leaders, and supervision
Assistance in editing textbooks

Prime Minister's Office, Rural Development Division
Administrative support for regional and district development directors (senior administrative officers of the decentralized government)
Provision of training facilities (rural training centers)
Assistance in training

Radio Tanzania
Assistance in editing radio programs
Provision of free air time

Tanganyikan African National Union (TANU)
Overall mobilization and recruitment of group members and leaders
Assistance in training

Institute of Adult Education (IAE)
Day-to-day campaign coordination
Editing and production of textbooks
Drafting, editing, and production of group-leaders' manual
Development of training methods and materials
Coordination of publicity
Production of posters
Evaluation

practical nature of the campaign. In addition, each Member of Parliament (M.P.) received a gift set of the campaign textbooks during Parliament's official session in Dar es Salaam. This tactic paid off, at least in the town of Bukoba in northwest Tanzania. There, the local M.P. held a series of meetings with the following agenda: "Man is Health Campaign" and "any other business"!

Tanzanian officials and other personnel at all levels get much of their news and information from circulars issued by senior ministry officials at Dar es Salaam and at various regional headquarters. Thanks to the Coordinating Committee, official letters stressing the consistency of *Mtu ni Afya* with national objectives, pointing out its integration with previous mass campaigns and adult-education work, and urging staff at all levels to support the campaign were sent out by the principal secretaries, by senior civil servants of the Prime Minister's Office and of the education and health ministries, and by the head of TANU's political education department. (Government personnel were not assigned specific duties until later in the campaign preparation period.)

A combination of political party support and active recruitment of adult-education coordinators at the ward level was used to mobilize the general population. The training seminars for group leaders held at district, division, and ward levels stimulated interest, especially when officials and other influential individuals participated. Some people become group leaders by responding to publicity appeals (via newspapers and other media) for organizers. TANU officials were actively assisting in the recruitment process as early as October 1972, six months before the first broadcasts. Recruitment and popular support were given a last-minute boost when the Prime Minister, Rashidi Kawawa, went on the radio to encourage the people to participate in the campaign.

In-the-field mobilization efforts were backed up by intensive and sustained publicity. Media of all kinds were used to introduce the campaign and to keep it in Tanzanians' minds. The symbol of the campaign, like a logo in conventional advertising, identified the campaign at a glance. Giving the campaign a name, an established practice in Tanzania, provided an audible symbol as well. The title "Man is Health" soon became part of the everyday vocabulary and captured the imaginations of many. On one crowded bus, friendly passengers were heard to shout, "Open the windows! *Mtu ni afya*! We don't want to suffocate!"

Press releases heralded each new phase of the campaign, and newspapers and magazines were used to the fullest. Articles and features appeared both in *Uhuru* ("Independence"), the Kiswahili daily with a readership of 200,000, and in the *Daily News*, the English-language paper read mostly by civil servants and officials. More significant for rural areas were the stories carried in *Kwetu* ("Ours"), the Ministry of Information's monthly magazine with a circulation of about 50,000; in *Urusi Leo* ("Russia Today"), a widely distributed information newspaper; and in *Ukulima wa Kisasa* ("Modern Farming"), a rural newspaper distributed by agricultural field staff and read by more than 100,000 rural people.

Radio spots were aired over both the national (largely educational) and the commercial services. Matsushita Radio and Battery Company responded to requests from campaign organizers with free commercial air time (two-minute spots) on their popular thrice-weekly evening programs. On one such spot, it was pointed out that "if the textbooks [study guides] were piled one on top of another they would be higher than Kilimanjaro" (Barrett, 1976). Matsushita also offered the use of advertising space reserved for them in newspapers and on the back cover of *Film Tanzania*. (This entertainment magazine, especially popular in urban areas, features photographic action stories in comic-strip sequence.) Additional radio slots were made available on the weekly educational program of the health and rural development departments.

One campaign publicity device was truly unique: textile patterns were designed to incorporate the symbol of the campaign and various aspects of its messages. This form of publicity worked well because designs of *Khanga* and *Kitenge* (cloth sold by the length) that Tanzanian women traditionally wear change often, and women eagerly await new patterns. Urafiki Textiles initially agreed to print at least one special design, but ended up releasing five separate patterns in the course of the campaign.

As the campaign's spirit heightened, publicity extended beyond what had been planned. Many spontaneous responses cropped up, some in forms that fed back into the mobilization process. The Super Volcanoes, a pop singing group, recorded a song about *Mtu ni Afya* that was played on the radio, and other songs were written and sung by schoolchildren at school open-days and at local seminars. At least twenty campaign-inspired poems were printed in newspapers or read on the radio.

Production and Distribution of Materials

Previous campaigns had proven the fundamental importance of the media

Table 4

USE AND QUANTITY OF CAMPAIGN MATERIALS

DESCRIPTION	*USE*	*QUANTITY*
Weekly radio programs, 20 minutes each	*Group listening*	*12*
Weekly "gathering-time" programs, 10 minutes each	*Group listening*	*12*
Mock radio programs (cassettes), 20 minutes each	*Leader training*	*400*
Study guides, sets of two 48-page volumes	*Group study and leader training*	*1,000,000*
Group leaders' manuals	*Leading of groups and leader training*	*75,000*
Flipcharts, sets of sixteen	*Leader training*	*400*
Health education posters, sets of seven	*Group discussion*	*10,000*

materials—radio programs and printed matter—to the success of the study-group method. The materials produced for *Mtu ni Afya* are listed in Table 4.

Radio programs

The radio programs were multi-functional. First, they provided a framework for the meeting of study groups. They gave participants a sense of movement and accomplishment that is critical to the success of any mass campaign, and they compelled groups to progress. Because they were important and because the textbooks and the group leaders' manual were based on them, the programs had to be ready early. Thus, drafting of the radio-program scripts was the first item on the production schedule.

Second, the radio programs helped group members identify with the materials they were studying and discussing. On the radio shows, real people talked about real problems. As much as possible, the radio programs included recordings of villagers made in the field speaking about their own experiences with the subject under discussion. Dramatizations of important problems by actors and commentary by health experts rounded out the shows.

Third, the radio programs reinforced messages broadcast via other media. The programs were designed to cover the same material as the textbooks did but in a somewhat different way. Campaign planners knew that many groups would have to make do with poor radio reception, that some would have no radio at all, and that in some places a radio would be available one week but not the next. Therefore, provision had to be made for groups that would lack text or radio, as well as for groups that would have both.

Each half-hour show opened with the catchy signature tune that marked the beginning of the 10-minute "gathering time." These introductory segments combined advice to groups, news about the progress of other groups, and songs or poems based on the campaign or related themes. Then came the 20-minute study programs. Each show ended with a summary of the information that had been

Table 5

RADIO PROGRAMMING SCHEDULE

Week No.	Topic	Dates Broadcast (1973)
1	Malaria	May 14, 16
2	Malaria	May 21, 23
3	Malaria	May 28, 30
4	Water-borne diseases	June 4, 6
5	Water-borne diseases	June 11, 13
6	Dysentery	June 18, 20
7	Dysentery	June 25, 27
8	Hookworm	July 2, 4
9	Hookworm	July 9, 11
10	Schistosomiasis	July 16, 18
11	Tuberculosis	July 23, 25
12	Tuberculosis	July 30, August 1

presented; this summary was given by a health officer who echoed the textbooks and the group leaders' manuals by stressing the next step—action.

Table 5 shows the six topics assigned to the radio programs and corresponding textbook sections over the twelve weeks of the campaign. Each program was broadcast twice, on Monday and Wednesday, to give study groups a choice of meeting times.

Study guides

The study guides consisted of two volumes of 48 pages each. The books were the same size as the literacy primers, and, like them, were printed on the Goss presses used for the daily newspaper *Uhuru*. Reels of 52-gram newsprint were used for the text, covers were printed on cardboard, and staples were used to bind the books.

The originals of the text pages were typed and then enlarged photographically. The final print size was 120-pica with one-and-a-half spaces between words, a type face geared to new literates. For ease in reading, line length was set at 32 characters. Although the original plan specified that each participant would receive a set of books, some people had to share sets as the campaign's popularity grew.

Both photographs and line drawings were used to illustrate the texts. Campaign organizers were aware of research indicating that photographs with the backgrounds blocked out, rather than line drawings, are most easily understood by non-literate adults. But because drawings are easier to reproduce on newsprint, they were used for many of the illustrations. Page space was divided between text and illustrations in a ratio of about 60 percent to 40 percent.

The study guides and the preliminary scripts for the radio programs were drafted by the Health Education Unit of the Ministry of National Health. The Community

Medicine Department of the University of Dar es Salaam suggested certain alterations; for example, some material about how flies transmit diseases was cut to make room for a second section on tuberculosis. Writers from these ministries presented each week's topic according to a uniform three-part format: (1) disease symptoms, (2) dangers and complications, and (3) prevention. They reduced the texts substantially to fit them on the limited number of pages available. Each final text contained about 11,000 words. (The average Kiswahili word is one or two characters longer than its English equivalent.)

Next, the study guides were edited for style and vocabulary. In terms of difficulty, the books were meant to pick up where literacy primers left off. Exceptions had to be made for medical and other technical terms essential to the discussion of diseases, but such exceptions were kept to a minimum and care was taken to give all synonyms for a single disease. In some parts of Tanzania, people mistakenly believe that *Homa ya mbu*, an illness that strikes adults, and *Dege-dege*, a severe fever children get, are two different diseases. Although adults respond to classical measures against malaria, the children's sickness is commonly thought to be unrelated to mosquitoes and unresponsive to western-style medicine. Both, of course, are malaria and can be prevented and treated with chloroquine or some similar medication.

Interspersed throughout the study-guide sections are questions intended to stimulate group discussion and action. The questions (translated) below followed a narrative on hookworm:

1. Look at the members of your family. Do you see any hookworm symptoms among them?
2. What are some reasons why people in your village would not use latrines? Discuss how such taboos can be broken.
3. Discuss your village and find places where a public lavatory is necessary. How could a latrine-construction scheme be started in your village?

Group leaders' manual

The group leaders' manual, a 16-page newsprint booklet, contained two kinds of information. For purposes of training and reference, the manual listed duties of a study-group leader, methods of recruiting members, and ways of running study meetings smoothly. In addition, the booklet gave group leaders detailed guidelines for each meeting, as well as the complete schedule of radio broadcasts related to the campaign. Each of the 75,000 study-group leaders received a manual. The translated sample section of the manual shown in Figure 3 outlines the campaign's sixth-week meeting agenda.

The group leaders' manuals also contained the group registration form, a key source of information for the campaign evaluation. The form, along with instructions for filling it in, was stapled into the center of the manual. At the end of the campaign, the forms were to be torn out and sent to Dar es Salaam for analysis.

Figure 3

TRANSLATED EXCERPT FROM GROUP LEADERS' MANUAL

MEETING OF THE SIXTH WEEK

LESSON: DYSENTERY.

Purpose: The aim of this lesson is to show group members why it is essential for those suffering from dysentery to go to a hospital for treatment, and to show them how this disease spreads. It is also important that the group members make sure that they implement effectively all their resolutions.

Section for this week from the book:

- *Dysentery, part 1, pp. 36-44.*

Important points:

- *The meaning of dysentery*
- *The cause of dysentery*
- *Symptoms of dysentery*
- *How it spreads*
- *Resolutions and actions*

The Planning:

1. *In the meeting.*
   - *Read the minutes of the last meeting at 4 p.m.*
   - *Listen to the radio broadcast on the day that the group has chosen. Those without radios can read the books.*
   - *Recommendations, questions and what to be done should be read.*
   - *Decide among yourselves on the questions and agenda, and decide on the implementation.*
   - *Allocate work to group members according to the decision reached by the group—for instance, reading some parts of the book in preparation for the following meeting, preparing the place for the next meeting, preparing materials (e.g., radios, batteries, etc.).*
   - *Make a roll call of all group members.*
   - *Make sure that every group member arrives at the meeting 15 minutes before the radio broadcast in order to listen to the minutes and discuss questions and actions for implementation.*

2. *Preparation for the next meeting:*
   - *We shall read at home about dysentery, second part, pp. 44-48.*
   - *We need pick axes, hoes, etc., for digging pits.*
   - *New books: Mtu ni Afya - "Upatie afya bora," Hookworm, Bilharzia, T.B.*
   - *Make arrangements to get a guest speaker if it is necessary to invite one.*

Materials needed:

- *Radio and batteries*
- *Books for group members*
- *Blackboard and chalk if there is a guest speaker*
- *Exercise book and pencil (optional)*

Where to get help:

- *District Education Officer (Agricultural Extension)*
- *Adult Education Co-ordinator*
- *Head Teacher*
- *Doctors or Rural Medical Aid*
- *Community Development Officers*
- *Field Officers*
- *Water Development Officer*

Distribution of materials

Distributing the printed materials was a prodigious task. The district adult-education officers were asked for estimates of the number of groups they expected would be formed in their respective areas. Then, the numbers of *ujamaa* villages in individual districts were counted. Armed with this information, organizers decided how many books to send to each area. (They presumed that the average study group would contain fifteen people.)

Accessibility and distance determined priorities in the distribution process. The Institute of Adult Education in Dar es Salaam directed distribution from the printer to the district centers. The district adult-education officers then took the books from district centers to outlying villages.

At first, planners figured that the basic unit package should contain material for one group (that is, fifteen sets of study guides and one copy of the group leaders' manual). But as things got rushed, packers resorted to using cardboard boxes that held about 120 sets of the study guides and manuals. These boxes were not too heavy for one man to handle, and were sturdy enough to withstand transport.

Most of the textbooks traveled from district center to study group in the hands of newly trained group leaders. Although distributing materials through the training seminars for group leaders seemed a practical idea, many tie-ups developed. Some trainees had to traverse long distances to attend the seminars; without adequate transportation, they found taking boxes of books back home with them troublesome.

In contrast, distributing training materials proved relatively easy. The flipcharts, cassettes, and seminar timetables went (by bus, foot, Landrover, and plane) straight to the district centers with few hitches. The posters, however, were produced late and had to be distributed separately. The few posters printed were sent to district health officers with instructions to forward them primarily to *ujamaa* villages.

TRAINING OF STUDY-GROUP LEADERS

The *Wakati wa Furaha* campaign had shown that trained group leaders are crucial to the establishment and continued functioning of study groups. With a target audience fifteen times that of the previous campaign, *Mtu ni Afya* called for 75,000 trained leaders. Since the effectiveness of training seemed to hinge on having the campaign materials available at the training sessions, training could not begin until the textbooks, leaders' manuals, and flipcharts had been prepared and distributed. As Figure 1 shows, the first training seminar began in January of 1973. To train 75,000 leaders by May 14, the date of the first radio broadcast, organizers devised a phasic training system.

Training proceeded in three, sometimes four, stages. In the first stage, teams totaling about 240 regional officers from various ministries were divided among seven *zonal seminar* groups to learn about study-group methods and about how the campaign related to national objectives. At these seminars, which lasted about three

days, regional teams were trained to organize and conduct the next level of seminars. Each zonal meeting brought together teams from several of Tanzania's (then) eighteen regions. Fourteen tutors from the Institute of Adult Education and the Department of Health Education in the Ministry of Health were grouped into three teams so that several zonal seminars could run simultaneously.

In February and March, the regional teams scattered throughout Tanzania to set up about seventy *district seminars*. At the district seminars, participants including district adult-education officers, rural development officers, TANU officials, district health and medical officers, agricultural extension agents, and representatives of voluntary agencies were taught how to train the front ranks of study-group leaders. The district seminars also served as distribution points for the campaign textbooks.

Finally, 75,000 trainees gathered at around 2,000 two-day *division and ward seminars* to learn how to recruit study-group members and how to conduct individual study groups. At this terminal stage in the training process, study materials were further dispersed.

Recruitment

Flexibility characterized the recruitment of study-group leaders. How a particular leader was selected depended largely on local customs and on local adult-education procedures. Most leaders were chosen by one of four methods.

The first method was to allow members of a prospective study group to choose one from among their number to attend the training seminar. Although perhaps ideal, this method was not the most prevalent. The main problem it posed was logistical: frequently, the training seminars were what initially aroused local interest, and the seminars would be over by the time people decided to form groups.

Another recruitment approach was simply to make the ten-house cell leaders study-group leaders. This method was relatively easy to adopt since TANU's well organized network of local leaders, one for every ten-household cell, runs throughout most of Tanzania. On the island of Mafia, in the *ujamaa* villages of Dodoma, and in other places where *Mtu ni Afya* was enthusiastically supported by local TANU officials, cell leaders extended their roles to become campaign activists.

Still other Tanzanians became leaders by responding to radio and other media publicity. Campaign publicity encouraged individuals who felt they could organize groups of ten to fifteen people to contact district adult-education officials. Some 5 to 10 percent of the eventual leaders answered this challenge.

The fourth, and probably most common, practice was for grassroots adult-education organizers to select leader trainees. The head teacher of each Tanzanian primary school also serves as the local adult-education coordinator and knows the community well, and these teachers' calling upon local participants in adult-education activities to function as group leaders often boosted local participation and identified natural leaders.

Seminar Content and Training Methods

The training seminars were the focus of several critical campaign activities. Information about campaign origins, aims, and content was provided to motivate people to participate, and group leaders were trained through direct use of campaign materials. In addition, potential problems in running study groups were identified and possible solutions discussed, local campaign planning was initiated, and campaign materials were distributed.

Most seminars ran from two to three days, generally three days for zonal and district meetings and two days for division- and ward-level training sessions. Since the divisional and ward seminars did not have to cover publicity planning nor some of the more theoretical aspects of leadership, they were shorter. Table 6 lists subjects covered during both the two-day and three-day seminars.

The training process was guided by the principle that seminars conducted at every level should conform as closely as possible to the format the study groups would later follow. In that spirit, full discussion and participation by all seminar participants was encouraged. The similarity of the seminars to the study-group meetings was underscored through use of campaign materials for the training

Table 6

TOPICS COVERED IN GROUP-LEADER TRAINING

Topic	*Recommended time spent (minutes)**
Mtu ni Afya *and adult education in Tanzania*	*30*
Mtu ni Afya *campaign origins*	*60*
Campaign aim: improving health	*60*
Recruiting study-group leaders and members; publicizing campaign through different organizations	*60*
Campaign materials: study guides, radio programs, group leaders' manuals, flip-charts	*60*
Distributing campaign materials	*60*
Leading Mtu ni Afya *study groups: preparing materials for meetings; preparing for action*	*60*
MOCK MEETING I (second week of campaign)	*60*
Discussion: importance of preparing the study group meetings	*60*
Leading Mtu ni Afya *study groups: how study groups and classes differ; responsibilities of leadership*	*60*
MOCK MEETING II (third week of campaign)	*60*
Discussion: responsibilities of members and leaders	*60*
Importance of and methods for obtaining feedback from the groups for research and evaluation	*60*
*Counseling and visiting study groups***	*60*
*Conducting study-group leaders' seminars***	*120*
Discussion: problems arising out of the campaign	*60*

**Times based on three-day zonal and district seminars.*
***Covered at zonal and district seminars only.*

sessions; each trainee could see the textbooks and listen to radio-program samples recorded on cassettes. In the same vein, role-playing in the mock study-group meetings gave leaders experience with discussion in small groups.

Indeed, planners felt that the experience of participating in a well organized group-learning situation would do more than words to impress on leaders the differences between a study group and a traditional class. For most leaders and group members, educational experiences had been dominated by the formal teacher-student relationship. The notion that the teacher is an expert and that the student is an empty vessel was consciously and scrupulously undercut from the beginning of the campaign: training emphasized that members of a *Mtu ni Afya* study group were to be equals working together to understand the complexities of local health problems. The campaign organizers and workers made it clear from the start that the group leader's job was to stimulate and focus discussion and to encourage appropriate action.

It was suggested at the training seminars that each group strive to leave behind one "monument," one physical structure or change that would stand in testimony to the group's participation in *Mtu ni Afya*. As it turned out, many groups had too much enthusiasm and creativity to confine their efforts to the construction of a single monument.

Table 4 listed the materials used in every training seminar—study guides, group leaders' manuals, sample radio programs, and flipcharts that noted key points on the study-group method and the campaign topics. It was hoped that consistent use of these training aids would help minimize distortion as the training "message" passed from zonal seminar to district seminar and finally to group leaders at the division and ward levels. Sets of notes duplicating the flipcharts were planned originally as an additional aid to trainers, but this aid never materialized because unforeseen tasks monopolized organizers' time. One such task involved hours down at the docks clearing tons of newsprint through customs, plus additional hours finding storage space for the paper.

The 400 radio-program cassettes were recorded by the Institute of Adult Education in Dar es Salaam, five at a time on five Philips portable recorders connected in series. No facilities for more efficient reproduction were available in the capital (although it was recently learned that duplicating facilities did exist 300 miles away in Dodoma at the time of the campaign). District adult-education officers had been given battery-run cassette recorders for other purposes, and these ordinary Philips portables worked well in the training seminars.

Training Evaluation

Campaign organizers wanted to track what happened to the training "message" as it passed through the stages of the seminar system. Accordingly, a simple set of observational guidelines was developed, and one man followed the message in its journey from the national to the ward level. This experiment indicated that some distortion did occur. Quite commonly, for example, the third-stage seminars would stray from the suggested schedule. Many of the division and ward trainers were

primary-school teachers with little or no experience in managing groups of adults, and they had trouble keeping conversations focused on one topic at a time. In a session purportedly devoted to the differences between study groups and classes. for instance, discussion may have gotten sidetracked to recruiting or radio batteries. Generally, however, the distortion of the content of the training sessions was limited.

The training system's most serious flaw showed up in the last stage of training. Reports from several regions indicated that, although the content of the seminars was satisfactory, group leaders could not be adequately trained in two days. A number of circumstances support this criticism. At the zone and district levels, most of those in training were experienced educators, or at least had participated in seminars previously and knew how to get the most out of a brief encounter. Furthermore, facilities where the first-stage seminars were held often included night lighting, so that the participants, most of them experienced readers, could read in the evenings. Most of the group-leader trainees, on the other hand, lacked experience with books, seminars, and education in general. For them, the usual two days was not enough time to comprehend fully all the material presented.

It was important that each of the elements of the campaign be kept in perspective and that no one get carried away by the idea that people can be manipulated mechanistically by means of radios, group leaders, and so forth. Henry Blid, who was involved in the training, expressed this awareness (1974):

> In the campaign we did not only rely on the training, the radio programmes and the other materials produced but also on the people themselves and their common sense. Many of us were convinced that given the basic information needed by means of books and radio programmes and supported by their study group leaders, the *Mtu ni Afya* participants would act in a sensible way. And so they did. *Had we not trusted in the people there would never have been any campaign to talk about. Campaigns become mass campaigns by the masses not their leaders. The leaders may initiate, be the spark, but the masses are the powder.* (Emphasis added)

4

MTU NI AFYA *("MAN IS HEALTH"): STUDY GROUPS IN ACTION*

During the week beginning on May 14, 1973, people all over Tanzania turned on their radios for the first of twelve *Mtu ni Afya* broadcasts. By the end of the sixteenth month of intensive preparation, some 75,000 study-group leaders had completed their training and were ready to lead the twelve weekly study meetings that would bring *Mtu ni Afya* home to untold numbers of rural Tanzanians and put the mass-media campaign approach to a rigorous test.[1]

The health-campaign study groups were designed to progress logically from learning to action. *Assembling* during the prescribed gathering time, group members heard ten minutes of political songs, poems, and short announcements relating to the campaign. Then the twenty-minute core program came on the air, and members settled down to some serious *listening*. Next, the group-leader or another literate person in the group introduced the printed material on that week's topic by *reading* aloud from the appropriate section of the study guide. *Discussing* both the radio shows and the written materials, the group related the topic to its own particular area and circumstances. If the information presented seemed relevant, members set about *resolving* how to prevent the disease or eliminate the health hazard in question. Before the next meeting or perhaps later, the group began *acting* on their resolutions, either individually within their homes or collectively in the community.

In practice, probably no two groups operated alike. About half the time, groups would have to make do without the radio programs. The radio reception in some parts of Tanzania was poor, some groups never had radios available, and those radios that were distributed occasionally broke down. When listening to the campaign programs was impossible, group leaders usually presented the pertinent textbook material orally.

Another variation in the meeting format derived from misinterpretation of the study-group method. Although they had been trained to act as peer facilitators, some leaders assumed traditional teaching roles and gave health lectures after the radio shows were over, often talking so long that group members had no opportunity to discuss the material among themselves, and sometimes irritating the group members.

Where groups were too large, discussion was stifled too. After trying to handle a study group of 75 or 80 people, five times the ideal number, some leaders explained that, "Although only a few actually participated in the discussion, everyone participated in the implementation of the resolutions." Yet, the success of the study-

[1]The following account of the study groups in action is based on three primary sources: interim evaluation reports drawn from short evaluation tours carried out in July 1973; more detailed supervision reports filed by local supervisors after visits to 2,131 groups; and demographic and attendance data supplied by the secretaries of nearly 20,000 study groups.

group method, organizers felt, depended on active discussion among all group members about how the content of the campaign related to their environment and to their daily lives.

HOW WERE THE STUDY GROUPS SET UP?

Roles Within the Groups

Three administrative functions had to be fulfilled for each group. Sometimes the study-group leader would perform all three: preparing for the meeting, chairing the meeting, and recording the attendance, minutes, and resolutions. In a typical group, the chairperson was a mature man, perhaps a traditional tribal leader or another locally respected individual. To be the secretary, a man or woman had to be literate and otherwise able to keep an accurate record of the proceedings. (The leader was usually the only group member especially trained for the campaign.) Functions were freely switched around, depending upon local predilections. Where the only literate person acted as the group leader, he or she would have to keep the records as well as guide the discussions.

In other groups, confusion between the roles of the leader and the chairperson created subtle problems. The Kiswahili title given the leaders, *kiongozi wa kikundi*, carries an authoritarian connotation. A *kiongozi* is traditionally someone who gives instructions and strong suggestions (that are usually followed). Of course, this unfortunate choice of nomenclature clashed with the leadership philosophy consciously propounded in the training seminars. In subsequent campaigns in Tanzania, a title that means "advisor," *mshauri wa kikundi*, has been used to avoid role conflicts and hurt feelings.

Group Memberships

Some groups contained two members, others two hundred. Many of the bigger groups broke up into small sections for discussion. The average group numbered 18. However, this figure conceals as much as it reveals; the great majority of groups had 25 to 30 members, up to twice the ideal of 15 suggested during the training seminars. Larger groups were more common for two reasons: in some areas, the campaign proved more effective than expected in mobilizing people to participate in the groups; as has been seen, actual audiences amounted to twice the pre-campaign audience estimate. The 75,000 trained study-group leaders could not cope with some two million participants and still maintain ideal conditions.

The second reason for large group size is related to the conversion of already organized literacy classes by adult education coordinators at the ward level. Many such classes (accounting for roughly 60 percent of all the groups) customarily met on Monday, Wednesday, and Friday, so that allotting either Monday or Wednesday to the health-education campaign was simple. The resulting *Mtu ni Afya* groups were hence the same size as the literacy classes, around 30 members. This number, while perhaps manageable where standard methods of teaching literacy are used,

was not conducive to discussion and other desirable study-group activities. Where people found the *Mtu ni Afya* material more interesting than the usual literacy topics, already crowded classes of from 30 to 35 people suddenly mushroomed to 50 or even 100. Since one campaign aim was to involve as many people as possible, most organizers welcomed additional members in spite of the impossibility of holding effective discussions in large groups.

Meeting Times

Groups could meet at either of two radio-broadcast times, Monday or Wednesday afternoon at 4:15. Those without radios or unable to gather at one of these times met whenever they liked. The programming was planned to conform with the afternoon scheduling traditional for other adult-education activities. Of course, no one time—or even one of two times—could be convenient for everyone in so diverse a nation as Tanzania. The attendance registers of some 20,000 groups show a strong preference for Mondays, when almost three-fourths of the groups (73 percent) met; 18 percent met on Wednesdays, and 9 percent convened on other days.

WHO PARTICIPATED IN MTU NI AFYA

Characteristics of Group Members

By the end of the campaign, background data had been received on about 300,000 of the estimated two million participants (slightly less than a sixth). These data show an attendance ratio of 51 men to 49 women. This balanced male-to-female ratio compares with 62:38 for *Wakati wa Furaha* and 43:57 for the adult-education classes sponsored by the Ministry of National Education. The *Mtu ni Afya* ratios varied from area to area; in some regions, women and men met separately. Even in the predominantly Muslim coastal areas, however, some women attended adult-education classes and some groups included both sexes. Although some Tanzanians still cling to traditional concepts of sex roles, women are becoming more and more active in adult education generally. That women made up nearly half the membership of the "Man is Health" study groups is evidence of this trend. Certainly, such pervasive efforts as disease prevention depend upon the attention and participation of both men and women. (Early in the campaign, organizers feared that the subject of health education would appeal more to women than to men, but their worries were dispelled as the study groups began forming.)

As had been the case for *Wakati wa Furaha*, the ages of study-group members ranged fairly evenly from 16 years to 40. People between 20 and 40 years old (those most likely to be open to new ideas and thus to change their practices, to establish new homes, and so on) accounted for 53 percent of all participants, with 18 percent younger and 29 percent older.

In terms of schooling, a statistically representative group of 20 participants in *Mtu ni Afya* would divide up as follows: seven who had no formal education, seven who had taken part in literacy classes, five who had finished one to four years of primary school, one who had completed between five and eight years of primary school, and no one with any secondary education. Fully 82 percent of the health-campaign participants had no more than four years of schooling. Overall, only 68.4 percent of the participants in *Wakati wa Furaha* fell in this same educational category. In reaching the target audience, unschooled rural people, *Mtu ni Afya* clearly outdistanced the campaign preceding it.

Having people of different educational levels working together in the study groups was advantageous for everyone. Each of the participants, regardless of schooling, could talk about his or her experience with illness. Participants with different backgrounds made different contributions, and literates and illiterates worked together. Experience and the willingness to share it—not formal knowledge—were the essential ingredients of active participation.

Out of the 20 representative group members, 93 percent, or about 19, were farmers. This increase over the previous campaign, in which only 72 percent of participants were farmers, is proof that *Mtu ni Afya* was on target in terms of occupation as well as educational level. Progress since the earliest Tanzanian campaigns, in which 25 percent of those enrolled were teachers, is plain to see; the restricted learning circle had given way to the mass campaign.

Attendance Rates and Patterns

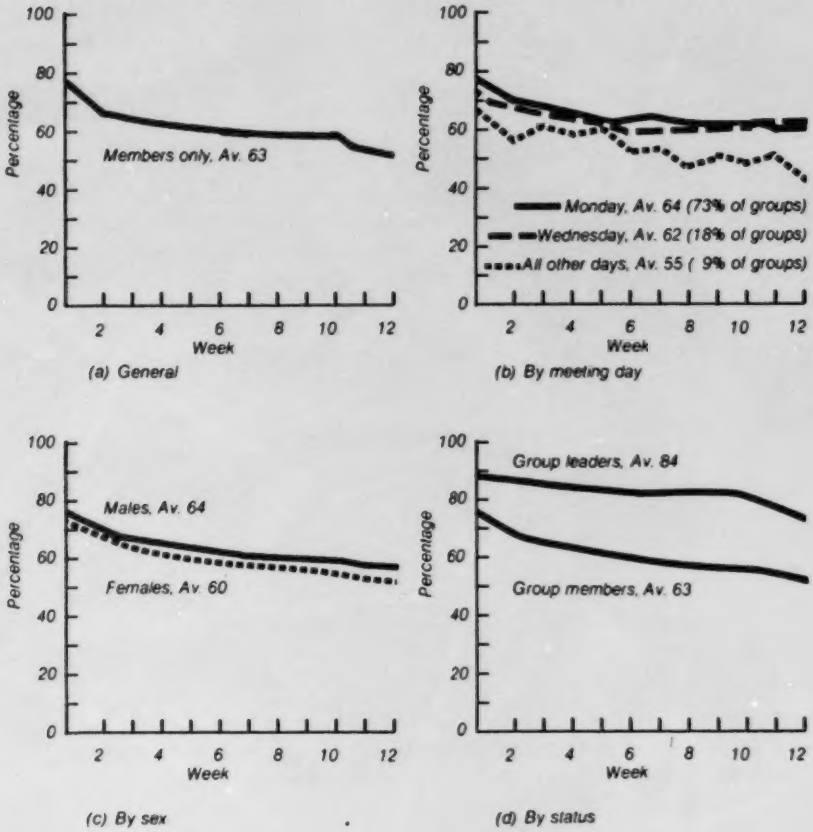
The attendance rates given in Table 7 for study groups in individual regions and for the campaign overall provide a basis for comparing the *Mtu ni Afya* campaign with other kinds of adult education. In Figure 4, attendance patterns are traced for the campaign overall (a) and for comparison by meeting day (b), by sex (c), and by status within the group (d). As the table and figure show, the average attendance rate for all regions combined was 63 percent. This figure is not strictly comparable to

Table 7

STUDY-GROUP ATTENDANCE RATES BY REGION

Region	*Attendance rate (percent)*	*Region*	*Attendance rate (percent)*
Coast	*67*	*Shinyanga*	*61*
Arusha	*66*	*Kigoma*	*59*
Mtwara	*66*	*West Lake*	*59*
Iringa	*65*	*Tanga*	*58*
Lindi	*65*	*Ruvuma*	*55*
Mbeya	*65*	*Singida*	*51*
Morogoro	*62*	*Mara*	*36*
ATTENDANCE RATE OVER ALL REGIONS (for which data are available) *63*			

Figure 4
STUDY-GROUP ATTENDANCE PATTERNS OVER ALL REGIONS



the 65-percent rate for the *Wakati wa Furaha* campaign, however, since the relative audience sizes of the two campaigns were different: the national election-related campaign attracted a good many people, about 20,000, whereas the later national health campaign, based on what may have been a more popular topic, drew nearly 2,000,000. Despite the larger scale, *Mtu ni Afya* almost matched *Wakati wa Furaha* in holding power. Compared with the average attendance rate for ordinary adult-education classes in Tanzania, about 33 percent, 63 percent is excellent.

Part (a) of Figure 4 traces the overall attendance of study-group members for the twelve weeks of the campaign. Starting out at about 77 percent of the eventual total audience (some people did not join until several weeks into the campaign), attendance suffered its steepest decline between the first and second weeks. Presumably, quite a few people decided after the first meeting not to take part in the

remaining group discussions. From the second week to the tenth, however, attendance fell only about 10 percent in all, a very steady pattern for an adult-education class.

But the graph in Figure 4 doesn't tell the whole story. Nearly a quarter of the people who enrolled in study groups never turned up at all, as the first-day figure of 77 percent attests. For those who did attend the first meeting, subsequent attendance averaged 86 percent, a much higher indicator of participants' interest than the national average of 63 percent.

Part (b) of Figure 4 shows how general attendance divided up according to meeting day—Monday, Wednesday, or some other time. Over 90 percent of *Mtu ni Afya* study groups met on Monday or Wednesday when the radio programs were played, and attendance patterns were virtually identical for the two days. But for the groups meeting on other days and hence without benefit of radio support, attendance began lower, remained relatively erratic during the campaign, and fell more sharply at the end. The average attendance figure for groups without radio support was 55 percent. The averages for groups that met on Monday or Wednesday were 64 percent and 62 percent, respectively. Regions known to have the poorest radio reception—Kigoma, Mara, and Ruvuma—all appear at the low end of the attendance list in Table 7. Evidently, radio support, though not indispensable, probably lends stability and hence improves attendance and (it is hoped) enhances learning.

Did attendance patterns differ between the sexes? Part (c) of Figure 4 shows twin attendance curves that average out at 64 percent for male participants and 4 percentage points lower for females. For the average-size *Mtu ni Afya* study group, eighteen people, this difference is too small to be significant.

Finally, part (d) of the figure combines the attendance pattern for group members already seen in part (a) with the corresponding plot for group leaders. Predictably and fortuitously, leaders attended meetings more regularly than did members, at the respective average rates of 84 percent and 63 percent. The dual graph shows an interesting trend. The group leaders had fairly even attendance until the ninth week, where the line drops sharply. The attendance of group members fell (for the second time) the following week. That the two drops were related seems likely: members simply followed the leaders and dropped out. Once again, the role of the trained leaders is shown to be crucial.

Participation in Discussion

People came to the campaign meetings, but did they participate? Discussion is the catalyst in the study-group learning process, and a major duty of the leaders was to stimulate as many of their group members as possible to take an active part.

Local supervisors who observed group sessions were asked to record the number of people who contributed to the discussions during their visits. Persons making at least one comment were counted. Visit reports came in for 2,131 groups in

nine out of Tanzania's eighteen regions in 1973. In these groups, an average 58 percent of the members participated in discussion.

How should this figure be interpreted? In most of Tanzania's adult-education classes, participation consists of recitation and repetition of words and sentences. But these passive activities, appropriate for literacy instruction, were not the sort of participation that campaign planners had in mind. Instead, leaders were trained to model their study-group sessions after *ujamaa* village meetings, where all kinds of contributions to discussions on any issue are expected and accepted. As we have seen, however, most of the study groups were oversized, and nearly all were larger than the recommended fifteen members. In view of that disadvantage, along with the fact that the educational experience was new to most participants, 58 percent seems respectable.

HOW DID THE STUDY GROUPS TURN LEARNING INTO ACTION?

Tanzania had seen several study campaigns before 1973, but the "Man is Health" campaign was the first to focus on action. This time, each group was to build some sort of health monument, some physical evidence of environmental change resulting directly from the campaign. The group leaders' manual contained suggestions for projects that groups could undertake to help prevent the various diseases and health hazards discussed during the campaign. Many groups, after analyzing their particular situations, came up with original and effective projects of their own. (In a later part of this report, the campaign's effects on the households of eight villages that were the focus of a special before-and-after study are examined.)

Many study groups did take up tasks suggested in the campaign materials. The most common of these activities are listed in Table 8, with percentages of groups participating in each based on reports from the 2,131 study groups. The supervisors' report form included space to indicate what resolutions groups made and whether or not those resolutions were transformed into action later. (Note that most supervisory visits took place during the first few weeks of the campaign, so that only activities relating to the campaign topics presented earliest were reported.)

Malaria was the subject for the first two weeks, and more than 1,200 of the group actions reported related to its prevention. The lessons first established that the mosquito carries malaria. Although this relationship had been known in medical circles for many years, most villagers in Tanzania were as unaware of it as the fellow who said, "I never knew that malaria was caused by this mosquito." (As mentioned earlier, people in different localities called malaria by different names and treated it differently as well.) Once the mosquito was identified as the culprit, the next step was to destroy its breeding places. As Table 8 shows, mosquito-eradication practices included clearing away large-leafed plants that grew near houses; destroying broken pots, old tins, and other containers that held stagnant water; and even draining ponds and larger bodies of water.

Table 8

STUDY-GROUP PARTICIPATION IN CAMPAIGN-RELATED ACTIVITIES

Activity	Participation by groups* (percent)
Cleaning areas around houses and clearing away nearby vegetation	28
Building, rebuilding, or repairing latrines	20
Destroying containers holding stagnant water	19
Boiling or filtering water, or both	12
Cleaning areas around water sources	11
Draining bodies of stagnant water	5
Using insecticides or malaria-preventing medication, or both	5
Digging rubbish pits	4
Digging wells	3
Making racks or stands to hold eating utensils	3
Avoiding group use of drinking containers and cigarettes	3
Airing bedding in the sun	2
Covering food	2
Collecting materials for construction	1

*Some groups pursued more than one activity.

The building of latrines was the next most common activity. About one-fifth of the groups visited had built or repaired latrines. In one district, Dodoma, latrine building took on truly monumental proportions—each house had its own latrine. There, TANU officials had called for a latrine for every house, along with other development projects, in a resolution proclaimed soon after the campaign began. A few irritated villagers in Dodoma complained about neighbors who tried to sneak into nearby latrines rather than build their own. One villager thwarted such trespassing by putting a padlock on his latrine door; an offender got the message and promptly built his own. In Iringa, people felt a latrine for every house was not enough, and were concerned about travelers waiting along the roadside for buses; accordingly, they agreed to build a latrine at each major bus stop in the area.

Hundreds of thousands of latrines were constructed in Tanzania as a result of the *Mtu ni Afya* campaign. This trend, if it continues, cannot help but reduce the incidence of diseases—such as hookworm and schistosomiasis—that are transmitted through human waste. Most specialists in preventive medicine feel that latrines and a pure, plentiful water supply are two of rural people's best defenses against the spread of most diseases.

Accordingly, water also received considerable attention from the study groups. In some parts of Tanzania, the same spirit of cooperation that prompted people to build latrines moved them to dig wells. Members in 253 groups of the 2,131 surveyed reported that they had begun to boil drinking water, filter it, or both. (The figure of 12 percent carrying out this activity may be high, but checking its reliability would be difficult.) Certainly, awareness of the direct correspondence between safe water and good health rose; an independent study of self-help water schemes confirms

the trend (Tchannerl, 1974). Yet the concept of safe water is not an easy one to get across. Many rural people persist in thinking that all piped water is safe. The national health campaign stressed that "clean" water is not necessarily "safe" water, even though the two may appear identical to the naked eye.

Tuberculosis (TB) was also covered early in the campaign. The campaign literature and radio programs recommended a number of measures aimed at preventing TB, including enlarging windows to allow more light and ventilation, boiling cow's milk, avoiding spitting in public areas, and getting vaccinations for everyone, especially children. In area after area, study-group discussions on how the disease spreads via the saliva of an infected person inspired original resolutions and actions beyond what had been suggested. People in most parts of Tanzania drink locally-made alcoholic brews out of a common container. As health campaign participants started to realize that they could be passing TB around with the beer, many local bars begun to offer customers individual drinking vessels. In some places the similar practice of sharing cigarettes was also labeled a dangerous habit, and at least partially eliminated. Once people understood how they could fight TB, they acted—even against the grain of custom.

One afternoon in the Mwanza region, for example, a *Mtu ni Afya* study group gathered around the local schoolteacher's radio to listen to a broadcast about tuberculosis. After the show, group members studied the material in the textbooks and began to discuss TB symptoms. As they talked, they realized that one of their own group showed those very symptoms. Group members determined that their friend's affliction could affect the health of everyone in the area. Together they decided that they all had some responsibility for the health of the community, and they took up a collection to pay for sending their colleague to a hospital for diagnosis and treatment.

In the spirit of *Mtu ni Afya*, activities were limited only by the imaginations of the participants. Some groups collected money to buy mosquito nets or malaria tablets. One town in Morogoro now closes its marketplace twice a week for cleaning by volunteers. In a town on Mafia Island, citizens occasionally stop what they are doing to help pick up rubbish and clean up.

COMMON PROBLEMS

Clearly, the groups did not always function smoothly. Apart from the major problem—the unmanageable size of many groups—various other shortages and shortcomings beset many study groups.

Although group leaders managed to find room for twice the anticipated number of participants, they had no way to multiply the study materials. Only one million sets of the textbooks were printed. In addition, distribution of both participants and books was uneven—in some places books became dog-eared while in others they lay unopened. In the West Lake region, for instance, more than four times the number of people expected enrolled in the campaign. Following pre-campaign estimates by local adult-education officials, organizers sent 50,405 sets of books to West Lake;

yet, study-group members numbered 235,000 there. A few groups had only one book each.

On the other hand, one or two districts had too many books. Unfortunately, the reporting system was too slow to allow redistribution of these excess texts until well into the campaign. Existing communication networks in Tanzania linked all districts directly with their regional headquarters. Districts adjacent geographically but belonging to different regions communicate only rarely, and then only with difficulty. Take the case of Arusha's Mbulu district and Dodoma's Kondoa district. The headquarters of the two districts are only 120 to 130 kilometers apart. Before the campaign, Mbulu received a large surplus of books; meanwhile in Kondoa, the textbook shortage was severe. Poor communications kept these neighboring districts from making the simple exchange needed.

Many groups were unequipped for action, though rural development field-staff members and people at local depots of Communication and Works (the ministry responsible for public works) all helped. Such activities as digging latrines, draining ponds, burying water pipes, and drilling wells require the use of spades, picks, and other implements; and necessary tools were frequently in short supply. Local extension officers received numerous requests for equipment, which pointed up the necessity of cooperation between various ministries. Proof soon accumulated that rural health should not be the sole concern of health personnel or of adult-education officers; thus, inter-ministerial cooperation became a major by-product of the *Mtu ni Afya* campaign.

That 80 to 90 percent of Tanzanians understand a common language, Kiswahili, is an important national asset. But scratchy words heard over a malfunctioning radio set are harder to comprehend than the same words spoken by a next-door neighbor. Moreover, most radio programs were recorded in the coastal areas where people speak relatively fast, and many complaints about the pace of speech on the campaign's radio shows appeared in interim reports.

Language problems also arose in connection with the group-leaders' manual. The study guides were scrupulously edited for vocabulary level, but the leaders' manuals were put together less carefully. Consequently, at least a few of the leaders never even glanced at their manuals once the training seminars ended.

CONCLUSION

The figure for average participation by members in study-group discussions, 58 percent, failed to fulfill the hopes of some campaign organizers. Yet, in light of general experience with adult education and health practices in Tanzania, this result reflects well on the health campaign and on the study-group method.

In moving groups from discussion to action, however, the campaign was an unequivocal success. As reports began to come in on the kinds of activities that were carried out in the various regions and districts, it became clear that the

message that discussion alone should not constitute the entire activity of the group had been accepted. The new kind of learning that went on during the *Mtu ni Afya* campaign reached many people in a way traditional approaches used in other adult-education programs never had. The proof was in the efforts people made to improve their health.

The total number of person-hours that went into activities inspired by the "Man is Health" campaign cannot be counted. Consider latrine-building alone. If the average latrine took 50 hours to construct, the estimated 750,000 latrines (based on district reports) built in Tanzania represent 37.5 million person-hours. If the Ministry of Communication and Works had paid workers one Tz shilling an hour to do the same, the cost would have been 37,500,000 Tz shillings. The campaign itself cost only 1,942,000 Tz shillings.* The gains from a single activity among the many pursued by *Mtu ni Afya* participants are staggering.

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*This figure represents "externally financed" campaign costs (that is, those not absorbed by the participating ministries and agencies). The Appendix of this study outlines how the external funds were spent.

5

MEASURES OF CAMPAIGN IMPACT

Chapter 4 answered a number of questions bearing on the impact of *Mtu ni Afya*. But campaign planners did not intend to rely solely on routine data—total enrollment, regional distribution of study groups, and attendance rates and patterns—to evaluate the campaign's effectiveness. They wanted to see how well specific health messages got across to Tanzanians, and so provided for two more measurements: how much knowledge was gained by study-group participants, and how many villagers adopted certain health practices as a result of the campaign.

KNOWLEDGE-GAIN TEST

To gauge the radio study-group method's effectiveness in conveying information, campaign organizers arranged to test members of study groups located in four representative regions. Those participants, including both *ujamaa* and non-*ujamaa* villagers, answered a single set of multiple-choice questions twice; once just as the campaign began, and again after the campaign.

Selecting Study Groups for Testing

The study groups chosen for testing were located in four different regions: Coast, Iringa, Mtwara, and Mwanza. Within each region, groups from both *ujamaa* and non-*ujamaa* villages were to be selected. Control groups, which were not to take part in *Mtu ni Afya* but were to continue their programs of literacy and political education during the campaign period, were also tested.

Campaign organizers were particularly eager to compare the progress of *ujamaa* and non-*ujamaa* villages. Some adult-education and community-education workers in Tanzania feel *ujamaa* (or cooperative) villages make better learning environments than do traditional villages. As the argument goes, *ujamaa* villagers, who make a voluntary change in life-style when they join a cooperative community, probably possess a relatively high degree of political motivation that could be expected to carry over into health studies and other activities. At the least, the social discipline and the emphasis on collective work that characterize life in *ujamaa* villages would seem to augur well for good attendance and full participation.

Unfortunately (if only for evaluators), the notion of a control group conflicts with the aims of an intensive campaign. When the idea is to mobilize every person possible, finding someone (much less an entire group) who will not take part is difficult indeed. On Mafia Island, an especially politically active part of the Coast region, there were no control groups since TANA felt that in such a national campaign all people were entitled to participate. In Mtwara, a similar situation developed as the control group, swept up by the excitement of the campaign, participated as fully as any of the officially sanctioned study groups. That control

groups were not also divided between *ujamaa* and non-*ujamaa* villages was a major flaw in the experimental design.

Developing the Test

In April 1973, the Institute of Adult Education drafted 25 multiple-choice questions based on the health lessons contained in the radio programs and in the textbooks. The test was edited for vocabulary level and then tried out on about seventy-five adults living in both urban and rural areas. The results of this trial helped the evaluation team to weed out ambiguous or otherwise weak questions. The final test was reduced to 13 questions and was administered orally to individual study-group members by their leaders under the supervision of district adult-education officers. The pre-test was given during the week between the first and second study-group meetings; the post-test followed the final meeting.

Test Results

The mean scores of the study groups tested in each of the four regions are shown in Table 9. Campaign evaluators studied these results for answers to three questions.

First, did the pre-test and post-test scores of the experimental groups (those participating in the campaign) differ significantly? In other words, does the radio study-group method work? Apparently, participants did learn something about health and disease in the brief period of the campaign. On the average, *Mtu ni Afya* study groups showed a rise in score from 43 percent to 63 percent, for a percentage improvement of nearly 47, significant at the .01 level.

Second, did the experimental groups learn significantly more than the control groups? As mentioned before, abiding by the goals of the campaign made rigorous isolation of the control groups impossible. Most members of the control group not only knew of the campaign, but also participated in it actively. Thus, results showing knowledge gains of experimental control groups could be spurious and should be evaluated accordingly. As the table shows, the experimental groups, comprising a total of 185 members, gained an average of 20 percentage points from pre-test to post-test, improving their collective score by almost 47 percent. The control groups gained only 9 points for an improvement of 19 percent. The difference between the two scores—28 percent—is statistically significant at the 0.05 level.

Third, did the ujamaa village group-members tend to learn more than the other participants? Table 10 divides up the test results for experimental group members according to village type. There is a difference of 7 percent in the test-score gains of *ujamaa* village participants over others (gains that represent improvements in test scores of 56 percent and 35 percent, respectively). This better performance on the part of *ujamaa* village groups is significant at the 0.05 level. In this case, these results must be viewed with skepticism and serve only to highlight what is an interesting

Table 9

KNOWLEDGE-GAIN TEST RESULTS

Region and study group	Number of study-group members	Mean Score on pre-test	Mean score on post-test	Percentage improvement*
		(percent)		
COAST**				
Group 1	5	63	80	27
Group 2	13	39	56	44
IRINGA				
Group 1	23	60	86	43
Group 2***	24	47	58	23
Group 3	31	37	63	70
Group 4	18	47	56	19
MTWARA				
Group 1	15	25	39	56
Group 2	12	22	47	114
Group 3	16	33	54	64
Group 4	15	41	69	68
Group 5	15	39	66	69
MWANZA				
Group 1***	11	41	47	15
Group 2	18	61	66	8
Group 3	11	41	61	49
Group 4	8	63	82	30
AVERAGE SCORES FOR EXPERIMENTAL GROUPS (185 members)		43	63	47
AVERAGE SCORES FOR CONTROL GROUPS (35 members)		49	58	19

*Percentage improvement calculated as follows (using scores for first group listed and rounding off): (80-63)/63 x 100 = 27

**Malia Island only

***Control group

Table 10

KNOWLEDGE-GAIN TEST RESULTS: UJAMAA AND NON-UJAMAA STUDY-GROUP MEMBERS

Village type	Number of study-group members	Mean score on pre-test	Mean score on post-test	Percentage improvement*
		(percent)		
Ujamaa	89	41	64	56
Non-Ujamaa	96	45	61	35

*Percentage improvement calculated as in Table 9.

question for further research. (Strictly controlled experiments that more selectively eliminate sources of score bias would need to be made.)

HEALTH-PRACTICES SURVEY

Improving health was what *Mtu ni Afya* was all about. Recording the health practices each of the roughly two million participants adopted would have been impossible; yet, campaign evaluators wanted to know in what ways the campaign had changed most villagers' lives. Limitations of funds and personnel compelled planners to select with care both the focus and the content of their health-practices survey.

Choosing Target Areas

Campaign organizers felt sure that those villagers participating directly in the study groups would be affected by the campaign and that the effects needed only to be measured. But what about the participants' neighbors? Since the campaign was aimed at promoting change that would benefit the overall village, evaluators chose to focus on health practices at this level.

Financial restrictions limited the number of villages surveyed to eight. Since eight villages cannot be called representative of the nation as a whole, each survey is actually a case study of what changes *Mtu ni Afya* inspired in a particular area. In light of numerous observations of group actions all over Tanzania, however, the eight villages surveyed appear in no way remarkable in terms of enthusiasm or participation. Care was taken to ensure that residents of the villages surveyed remained unaware that they were under special scrutiny.

The main criterion for selecting a target village was that at least one "Man is Health" study group would operate there. Differences in culture, climate, and political activism were also taken into account. Four villages in each of two regions were finally chosen, as follows:*

DODOMA Region	*COAST Region*
Bahi Sokoni (*ujamaa*)	Kaloleni
Buigiri Mission (*ujamaa*)	Kerege (*ujamaa*)
Hombolo Bwawani (*ujamaa*)	Kihimbwa
Mvumi Ikulu (*ujamaa*)	Kikongo (*ujamaa*)

The four villages in Dodoma are all *ujamaa* villages formed as a result of TANU's Operation Dodoma in 1971. Each of the sites had been only a small settlement before the Operation, but the new villages are large, each comprising from 350 to 600 houses. In contrast, the Coast villages (which became *ujamaa* villages in the 1960s) are all long-established settlements containing between 30 and 120 houses each.

*For brief descriptions of the villages, see Hall and Zikambona, 1974.

Developing the Health-Practices Checklist

The survey was based on a list of visible health practices. One suggestion made to the study groups, for example, was that vegetation immediately surrounding houses be cleared to eliminate likely breeding places for malaria-carrying mosquitos. Whether or not this suggestion was implemented could be easily seen. (Direct observations were considered important because answers to verbal questions on health practices were sometimes evasive.) Whether people really were boiling water was hard to tell, but a new latrine was concrete proof of a change in health habits.

An initial health-practices checklist was developed by the National Coordinating Committee and tested by Tanzanian medical students who were doing field work in Morogoro a few months before the campaign. A final version was developed on the basis of the pre-testing, and a complete set of instructions was developed for the survey-takers. The final health-practices checklist appears in Figure 5. A number of the individual items are explained in more detail below.

Item 1—Health education officials decided that vegetation must be absent within fifteen feet of the house.

Item 3—This question had to be answered verbally, since entering people's bedrooms was not thought proper.

Item 4—That is, did *all* windows have mosquito netting?

Item 5—In the pre-campaign survey, observers counted only latrines with solid floors, four walls, and roofs. In the post-campaign survey, however, question 5 had to be modified to read, "Has a latrine of any kind been built or rebuilt as a result of *Mtu ni Afya*?" The standards called for in the campaign textbooks and radio programs turned out to be unrealistic. Not only was the standard latrine to have a floor, four walls, and a roof; it was also to be placed over a pit twelve feet deep. (The kinds of latrines actually built are described in the next section.)

Figure 5

HEALTH PRACTICES CHECKLIST

1. *Is there vegetation growing near the house?*
2. *Are there depressions, holes, or receptacles of any kind near the house that could hold stagnant water?*
3. *Is there mosquito netting over the bed(s) in the bedroom(s)?*
4. *Is there mosquito netting on the windows?*
5. *Is there a latrine that meets* Mtu ni Afya *standards?*
6. *Does the latrine have a cover?*
7. *Is the latrine being used?*
8. *Is the courtyard around the house free of rubbish?*
9. *Are there any animal feces near the house?*
10. *Are there any rats, other vermin, or other pests visible in or around the house?*
11. *Does the house have any windows?*
12. *Are there a lot of flies in or around the house?*

Item 7—Survey-takers were told to inspect the paths between latrines and houses. An untrampled, grassy path was a sure sign that the latrine was not in use.

Item 9—The animals in question were mostly cows, goats, and dogs.

Item 10—When observers asked villagers about vermin and other pests, people generally seemed willing to discuss the problem and to accept practical advice.

Item 11—In keeping with the recommendations given in the course of the campaign, a window was defined as a covered aperture at least two feet square that could be opened to admit fresh air and light.

Item 12—This question provoked a lot of controversy. Campaign materials emphasized heavily the threats flies pose to good health, and urged general cleanliness as well as the extermination of flies. But survey-takers could hardly be expected to count flies one-by-one. Organizers thus finally decided that since all observers would have similar educational levels and backgrounds, their ideas of what constituted "a lot" of flies would be fairly consistent, but this problem was never satisfactorily resolved.

Evaluators put the health-practices survey to two uses. For each village, the checklist was used to measure overall action to improve health. Households were awarded one point for each health practice followed, so total scores ranged from 0 to 12 points. The scores of all households in a village were then averaged to produce the village health-practices index. The difference between the pre-campaign index and the post-campaign index was used as a measure of health improvements for the village as a whole.

The survey results were also examined from the standpoints of the individual health practices. Which practices were most prevalent, which seldom seen?

Survey Results

Table 11 lists the health-practices indexes both before and after the campaign for the eight villages surveyed. Note again that every house in each village was checked, not just the homes of study-group members. All eight villages showed an increase in positive health-related activities, as indicated in the right-hand column of the table.

A strong seasonal factor must be taken into account in interpreting the scores for the Dodoma region. A major item making up the health-practices index was the clearing of vegetation away from houses. During the pre-campaign survey in March, the maize crop in Dodoma was at its highest, obscuring village houses almost completely from view. When the post-campaign survey was carried out in September, however, the crop had been harvested. Of course, the rises in the Dodoma health-practices indexes must be laid at least partially to this exaggerated improvement in the first item on the checklist.

Table 11

HEALTH-PRACTICES SURVEY RESULTS, BY VILLAGE

Region and village	Number of houses	Mean pre-campaign health practices index	Mean post-campaign health practices index	Percentage improvement*
DODOMA				
Bahi	335	2.1	4.3	105
Buigiri	365	3.1	4.6	48
Hombolo	528	3.0	5.4	80
Mvumi	493	2.2	3.2	45
Regional Averages	1,720	(2.6)	(4.4)	(61)
COAST				
Kaloleni	120	3.8	6.4	68
Kerege	88	6.9	8.2	19
Kihimbwa	34	2.7	5.3	96
Kikongo	122	4.9	6.6	35
Regional Averages	364	(4.6)	(6.6)	(42)
OVERALL AVERAGES	2,084	3.6	5.5	60

*Percentage improvement calculated as in Table 5-1.

Collectively, the eight villages (comprising 2,084 houses) showed a rise in health-practices score from 3.6 before the campaign to 5.5 afterwards, a 60 percent improvement. (Corrected for distortion caused by seasonal changes in the Dodoma results, however, Mvumi's small improvement becomes negligible.)

Initially, the table shows, the Coast villages boasted health-practices scores considerably higher than those for Dodoma. Coast's average pre-campaign index of 4.6 is nearly double Dodoma's 2.6. Kerege's outstandingly high pre-campaign score of 6.9 reflects the village's special nature. Beginning in the early 1960s, the Tanzanian government invested a good deal of money and effort in this *ujamaa* village, making it almost a model of its kind. That the investment paid off is evident in the condition of the houses and in the health habits of the people in Kerege.

Table 12 breaks down the survey results by practice. Neither the health-practices categories nor the numbers in the table represent all the changes inspired by *Mtu ni Afya*; they merely indicate that improvement did occur in the course of the campaign. The creativity of study-group participants both in modifying the health practices listed and in thinking up new ones in response to their own situations is only hinted at in these figures. The discussion below amplifies the results shown in Table 12.

Progress related to the first health practice listed, the clearing of vegetation, has already been discussed. The second health practice was met by filling in small holes and discarding broken pots and other useless receptacles. Overall, the 2,084 houses increased their observance of this practice by about 54 percent, with some

Table 12

HEALTH-PRACTICES SURVEY RESULTS, BY PRACTICE, FOR 2,084 HOUSES IN THE EIGHT VILLAGES SURVEYED

Health practice	Number of houses, pre-campaign	Number of houses, post-campaign	Percentage change*
1. Elimination of vegetation growing near house	286	1,916	+570
2. Elimination of stagnant water near house	357	548	+ 54
3. Mosquito netting in bedroom(s)	136	147	+ 8
4. Mosquito netting on windows	84	111	+ 32
5. Latrine meeting Mtu ni Afya standard	494	335	- 32**
6. Cover on latrine	328	685	+109
7. Latrine in use	421	939	+123
8. Elimination of rubbish around house	421	1,248	+182
9. Elimination of animal feces near house	1,399	1,223	- 13
10. Absence of rats or other vermin in or around house	503	773	+ 46
11. Windows in house	245	375	+ 53
12. Absence of "a lot" of flies in and around house	818	1,572	+ 92

*Percentage change calculated as for percentage improvement in Table 5-1

**Because the criteria for latrines were relaxed at the time of the post-survey, some latrines counted in the pre-survey were, apparently, later not thought to be of standard quality.

villages showing no change and others registering improvements of over 144 percent. Since the Coast villages lie within Tanzania's coastal rain belt, this practice was more applicable there than in Dodoma, which is dry most of the year.

With respect to the third and fourth practices, putting up mosquito nets meant buying them first, and lack of money proved to be a limiting factor. Bahi Sokoni, with the most severe mosquito problem of the four Dodoma villages, added the most mosquito nets; by the end of the campaign, twenty people there had equipped their bedrooms with nets. Adoption of this practice was much spottier in the Coast region, where only three or four houses in each village put up new mosquito nets.

Coast region's Kerege *ujamaa* village again stood out as the only village of the eight where netting was added to windows (item 4). Kerege's pre-campaign health-practices score was high, despite the fact that not one house there had window netting before the campaign. Afterwards, however, 14 percent of the windows of Kerege's houses sported mosquito nets.

On a national basis, the digging of pit latrines proved the most successful single activity of *Mtu ni Afya*. For the eight villages surveyed, however, as Table 12 shows, the number of latrines meeting the study-guide standards (see item 5) actually *declined* during the campaign period. As explained earlier, these standards were beyond the reach of most rural Tanzanians. But people built many latrines of their own design, and all kinds of latrines were counted in the post-campaign survey. Table 13 lists the results of that survey.

Table 13

LATRINES BUILT OR REBUILT DURING CAMPAIGN IN THE EIGHT VILLAGES SURVEYED

Region and village	*Number of houses*	*Number of new or rebuilt latrines*	*Percentage of houses with new or rebuilt latrines**
DODOMA			
Bahi	*335*	*85*	*25*
Burigi	*364*	*138*	*38*
Hombolo	*528*	*227*	*43*
Mvumi	*493*	*108*	*22*
Regional Average	*1,720*	*558*	*32*
COAST			
Kaloleni	*120*	*22*	*18*
Kerege	*88*	*49*	*56*
Kihimbwa	*34*	*15*	*44*
Kikongo	*122*	*57*	*47*
Regional Average	*364*	*143*	*39*
OVERALL AVERAGE	*2,084*	*701*	*34*

**Only latrines that met campaign standards were counted.*

The table shows that a total of 701 latrines were built or rebuilt in the eight villages during the campaign period, accounting for roughly 34 percent of the 2,084 houses in all villages combined. The figures for Dodoma are conservative since the post-campaign survey was done in late September 1973, when Dodoma's latrine-construction activities were just getting into full swing. As later reports show, nearly every house in Dodoma had a new latrine by December.

Many of Dodoma's new latrines were walled with maize stalks or similar plant materials and were roofless. Many of the villagers said they planned to add roofs to their latrines as soon as they had reinforced the walls with mud. By the end of the campaign, several people had demonstrated the feasibility of this plan by completing their latrines this way. Most Dodoma families allowed room for a bath in building latrines, so that some were nearly as large as houses.

Returning to Table 12, we see that the number of latrines with covers (item 6) more than doubled during the campaign period. The overall positive change rate of 109 percent reflects individual village improvements ranging from 21 to 700 percent. In general, the Coast villages implemented this practice to a greater extent than did the villages in Dodoma.

The success of efforts to get latrines covered grew as the seventh health practice—*using* latrines—gained popularity. The average rate of latrine use increased 123 percent in the eight villages, including a steep 370 percent climb in Kaloleni. That latrines were built did not always mean that they were used, and latrines serving merely as pristine symbols of status or progressiveness were not the

sort of "monuments" *Mtu ni Afya* planners had in mind. For many Tanzanians, using latrines meant breaking powerful taboos. The custom in some places is that the feces of fathers and children, particularly those of fathers and daughters, are not mixed. More generally, people find the expanse of the God-given bush a more natural setting than a small house for eliminating bodily wastes. In view of these and other traditional beliefs, the marked increase in the use of latrines by Tanzanians was one of the campaign's greatest accomplishments.

In many people's minds, *Mtu ni Afya* meant cleanliness. The village environment, houses, and even the people themselves appeared cleaner when the post-campaign survey-takers came around. The increase in the number of houses and courtyards free of rubbish (item 8 in Table 12)—182 percent more after the campaign than before—was the biggest improvement in the campaign, except for the removal of vegetation, which nature took care of through the harvest.

Falling also within the category of general cleanliness was the question of animal feces, the ninth item in Table 12. Study-group members learned that the wastes of domesticated animals (including cows, goats, and dogs) often contain the eggs of worms and other parasites harmful to people, and that feces also attract disease-carrying flies. Yet the campaign made no detectable dent in the habit of leaving feces around houses in the villages surveyed; in fact, such animal refuse surrounded 13 percent *more* houses after the campaign than before. In Dodoma, people customarily keep cattle in the immediate courtyards of houses to prevent theft of the animals. Consequently, large piles of manure lie near the houses. Efforts are being made to encourage people to keep cattle farther away from houses.

The tenth health practice in the table, concerning the presence or absence of rats and other pests, is another aspect of general cleanliness. The campaign materials urged people to make their homes unattractive to such pests by storing food carefully and by eliminating places where small creatures like to live. Within the modest overall improvement of 46 percent, success was mixed. Bahi in Dodoma region and Kikongo in Coast region both showed large decreases in the number of houses where pests were found; in the case of Bahi, this decrease corresponded with general improvements in cleanliness.

Like building the latrines, implementing the eleventh health practice, creating or enlarging windows to meet *Mtu ni Afya* specifications, required special efforts by the villagers. To improve lighting and ventilation in houses (partly as a defense against tuberculosis), the use of windows two feet square or larger was stipulated in the campaign materials; only such windows were counted in the surveys. The overall improvement in this category was small, 53 percent, but change was much greater in some villages than in others. Kerege, long established through substantial government support as an *ujamaa* village, already had large windows in 62 percent of its houses before the campaign. Kikongo started out as a sisal estate, and about 40 percent of all houses there had large "Western-style" windows. No more than 14 percent of the houses in the other six villages had even one good-sized window before the campaign. Two people in Mvumi eagerly pointed out to the survey team how they had enlarged previously existing windows in their houses' mud walls, according to them a fairly simple task.

The twelfth and final observation, the troublesome one of the numbers of flies around houses, was included in the survey despite measurement problems because the study guides and radio programs had so heavily emphasized flies' evils. As fieldwork since has suggested, however, the number of flies in a given area at a given time depends only partly on general cleanliness, absence of animal feces, and so on. Seasonal variations may influence fly populations. In the Dodoma villages, where the cattle are kept near the houses and where animal wastes were even more apparent after the campaign than before, the number of houses free from "a lot" of flies was up by nearly 50 percent at the campaign's end. In some Coast villages, on the other hand, a virtual one-to-one correspondence between the two practices seemed to prevail: a house free of animal feces was a house with few flies. Interpretation of these divergent findings is difficult; seasonal variations and flies' breeding times are poorly understood factors that call for further attention. At the time of the follow-up survey, Dodoma had been without rain for seven months; perhaps this severe shortage of water reduced the number of flies.

CAMPAIGN FOLLOW-UP AND INTEGRATION WITH NATIONAL HEALTH SERVICES

A lengthy discussion of the need for planned follow-up activities began in the early stages of the planning of the campaign. It led to the decision to vary follow-up activities according to regional health problems and priorities: most groups would continue to implement the agreed-upon activity, but systematic follow-up of some kind would be necessary. Two provisions were discussed in this regard: regional campaigns on local health problems and a second-phase, large-scale national campaign on nutrition to begin in 1975.

The handling of the question of regional campaigns was perhaps one of the major weaknesses of this program. As the campaign was beginning in April 1973, each region was asked by the Regional Development Directors to identify typical or chronic regional health problems. The National Coordinating Committee agreed to help develop educational materials for such regional efforts. In at least one case, this pattern worked very well.

Shortly after the campaign began in the Arusha region, in the Maasai district in particular, organizers and villagers began saying that the subject of the campaign as planned nationally was of no relevance to their region. They suggested that a campaign on venereal diseases was needed more. Officials in the district explained that the incidence of venereal disease is usually high in the Maasai district because of generally late marriages and a general freedom of sexual relations among males and females of the same age. As the age-sets* are pan-Maasai and there is much travel from place to place with the cattle, venereal disease has spread rapidly. The idea of a VD campaign was actively supported by Arusha's regional medical officer, and educational materials were prepared for the region. The VD campaign was a

*"Age-sets" reflect the custom whereby tribal members move from one role in society to another as they grow older. Until they are married, most young Maasai assume the somewhat nomadic life of cattleherders.

combined identification, treatment, and education effort and proved very popular. In fact, the materials prepared for Arusha have since been used in several other areas, including Dar es Salaam, on a smaller scale.

Other proposed topics for regional campaigns included trachoma (conjunctivitis) in Dodoma region and malaria in Mtwara. In Bukoba, plans were made and printed materials prepared for a local nutrition campaign. Unfortunately, only the Arusha regional campaign ever took place: lack of time and money, and a feeling on the part of many officials that these kinds of efforts were not interesting, promising, or effective were the constraining factors. In addition, there was general agreement among the organizers of the campaign that the question of follow-up had been left until too late and that this lack of immediate systematic follow-up represented one of the most serious flaws of the program.

Yet another weakness in the campaign overall was its lack of adequate integration into the health infrastructure; linkages with the curative services in the field were weak at best. To a large extent, the blame for this failure lay not with the campaign organizers themselves but with the nature of the services offered by the Ministry of National Health. Nevertheless, because of the success of the "Man is Health" campaign, much stronger links were formed between the health ministry and the "Food is Life" campaign that would begin in June 1975.

On a more positive note, the network of study-group leaders was not allowed to crumble this time as it had been during the preceding political education campaign; the names of all study-group leaders were maintained at divisional offices, and these leaders formed the core for the nutrition and food-production phases of the mass "Food is Life" campaign.

At the time of the campaign, the Ministry of National Health was beginning to make policy pronouncements of support for preventive medicine, but funds for prevention were not yet matching the rhetoric. So while the Department of Health Education gave 100 percent of its time and staff to the campaign, this action carried little weight with most doctors, who continued to see health care in terms of Western curative practices (Gish, 1975). While early in the campaign many persons within the Ministry of National Health doubted the usefulness of a campaign of this nature or the wisdom of having the Institute of Adult Education guide such an effort, the commitment of the health-education unit and the health-education field staff was active and full. Campaign organizers came to feel that the strong continuing impact of a campaign such as "Man is Health" depends on combining permanent, active village-health committees linked to expanded primary health care with periodic mass campaigns.

6

TANZANIA'S MASS CAMPAIGN: EFFECTS AND IMPLICATIONS FOR DEVELOPMENT PLANNERS

The party guidelines of the Tanganyikan African National Union (1974) clearly and forcefully state what "development" means in the context of the *Mtu ni Afya* campaign:

> For people who have been slaves or have been oppressed, exploited and disregarded by colonialism or capitalism, development means liberation. . . . If development is to benefit the people, the people must participate in considering, planning and implementing their development plans. The duty of the party is not to urge the people to implement plans which have been decided upon by a few experts or leaders. The duty of the party is to ensure that the leaders and experts implement the plans that have been agreed upon by the people themselves. When the people's decision requires information which is only available to the leaders and the experts, it will be the duty of the leaders to make such information available to the people. But it is not correct for leaders and experts to usurp the people's right to decide on an issue just because they have the expertise.

For Tanzania, *Mtu ni Afya* pioneered toward these goals of informing the people and of promoting their primary role in planning for their own futures and in implementing those plans. For those concerned with development in general and with rural development in particular, Tanzania's "Man is Health" campaign warrants careful consideration.

EFFECTS OF THE CAMPAIGN

Of all participants in the health study-groups, 90 to 95 percent were farmers. Educational planners have shown in study after study that the balance of urban and rural educational opportunities continues to be weighted heavily against rural people, especially the rural poor. In Tanzania, it was precisely this neglected group of rural and unschooled adults that benefited most from the campaign approach.

Rural people never before called upon to think creatively need help getting started. Villagers may have grown accustomed to leaving major decisions about the most fundamental economic relationships within their community to others, be they agricultural extension agents in the neighborhood or policy-makers in the capital. Thus, colonial habits of decision-making may linger long after political dependence ends. An experience in one Tanzanian village illustrates this point. Former employees of a sisal estate were made its owners and managers. Unable to believe their good fortune, they allowed production to fall sharply to their own direct detriment.

Today, when many nations' development policies stress increased involvement of the poor in their futures, change is slow. It takes time for people to rediscover that they have power and creativity, and that they can initiate positive alternatives to their present options or lack of options. While coming to grips with one's newly discovered power does require time, education can help—*if* the right methods are used. Agricultural "extension" methods that merely pass on knowledge of crop improvements from research station to farmer are not adequate. Neither are community-education efforts modeled on schoolroom setups in which teachers are experts and dependence on books is absolute. Where these and other methods have failed, however, group discussion can succeed. The radio campaign approach emphasizes the complete and equal participation of all study-group members in exploring the local implications and applicability of information disseminated over the radio and in print. This communal exploration may turn up relevant ways to use general knowledge and can help all involved overcome the inertia of passivity.

Mtu ni Afya created a communal atmosphere that fostered learning and action by rural Tanzanians concerning their own health. Before the campaign, most rural villagers saw illness as beyond their control. Where the possibility of help had been recognized, it was seen too much in terms of modern medicine, the provision of which is still hopelessly inadequate in rural Tanzania. The "Man is Health" campaign used radio and other media to raise people's awareness that they *can* control many of their shared health problems and that groups of people working together can eliminate many unhealthy aspects of village environments. This new habit of joint discussion and decision-making will, it is hoped, influence how people deal with future problems of all sorts. Villagers gathering today to discuss a communal feeding program for their children gain experience and skills that they can apply tomorrow when flood control becomes the issue.

In particular, the "Man is Health" campaign had the indirect political impact of strengthening the TANU ten-house cell system. At the time of the campaign, the cells in many villages had lapsed into inactivity except when called upon by branch or ward-party offices to do something. That the ten-house cell leaders in several districts, such as Mbeya, Dodoma, and Mafia, where the campaign was enthusiastically supported, acted as study-group leaders reinforced the structure of the ten-house cell system as a means of stimulating discussion concerning development questions. For many ten-house cells, such discussion can help initiate the difficult task of working out priorities for further development.

The collective action that mass-campaigns foster has far-reaching implications. As to what makes people act or why they decide to replace previous habits, there are several schools of thought. The rationalists, social scientists among them, say that information leads to reflection, reflection to change in attitude, and change in attitude to change in behavior. Hence, they emphasize the importance of identifying and modifying attitudes. Yet, as experience with mass campaigns indicates, behavioral change need not wait until attitude (that elusive something) alters. Everyone need not, for example, understand germ theory in order to perceive a need for latrines and to help build them. In fact, even an academic understanding would not necessarily lead to the construction of latrines; rather, social pressure may be used to prompt latrine building, while logic and convenience promote use of the finished product.

This positive use of social pressure brought dramatic results when applied to health in rural Tanzania. Isolated individuals have little ability to control the overall village environment as it affects their health. Although each person or family may make certain changes for the better, such as boiling water or eating more nutritious meals, larger and more complex environmental and economic questions can only be dealt with on a collective basis. Groups and whole villages working together can quickly and efficiently bring about major environmental changes that individuals cannot hope to achieve.

Once mobilized, people need information about the roots of their problems and about ways to solve them. The "Man is Health" campaign used radios, existing group networks, and popular media to open access to specific information about health problems in rural villages. No single institution could have reached more than a fraction of the rural population; neither the schools nor the extension networks could have carried specific information to as large a portion of the population as the campaign brought into active involvement. This expanded outreach enabled Tanzanians who had never before taken part in any organized learning activity to develop awareness and skills that could be put to immediate use in their daily lives.

In the *Mtu ni Afya* study groups, complete and equal participation by all group members was the rule. Ivan Illich, Paulo Freire, and others have pointed out the shortcomings of traditional student-teacher relationships. Adults who intend to direct their own development are not best served by an educational system wherein one person is expert, teacher, possessor of knowledge while the other participants are simply recipients of that knowledge. Rather, joint exploration such as that which characterized the Tanzanian health campaign stimulates lively involvement and becomes a strong motivating element for improving community life.

Another effect of mass campaigns apparent following *Mtu ni Afya* is the strengthening of grassroots political structures and hence the building of a mass political base. As pointed out earlier, TANU party cell-leaders became study-group leaders in some places, and the campaign fortified the newly emerged political structures of such villages by calling upon them to take specific actions.

The accomplishments of the health campaign are particularly impressive against the backdrop of cost. Through use of the existing network of extension officers and primary schools in combination with that of radio programs and mass-produced printed materials, campaign planners held down expenses to only a fraction of what literacy instruction or evening adult-education classes cost in Tanzania. Thus the mass campaign study-group approach is, under certain conditions, more economical by far than other forms of nonformal education.

IMPLICATIONS FOR DEVELOPMENT PLANNERS

The ultimate question regarding the Tanzanian experience is this: What are the chances that Tanzania's success can be duplicated elsewhere? The answer is not simple.

Originally, this study was intended as a handbook for campaign planners, but as the study progressed and the analysis deepened, it became clear that a single set of guidelines could not be extracted. There are no models. Neither China, nor Cuba, nor Tanzania provides us with a model that can be applied directly elsewhere. Indeed, one of the strongest points to emerge from the Cuban analysis of its own highly successful literacy campaign was that the campaign was *not* carefully planned. Beginning 18 months before the first radio broadcast, on the other hand, planning for the "Man is Health" campaign was thorough. Table 14 provides a comparison of the Tanzanian campaign with those previous media experiences discussed in Chapter 1.

Mass mobilization does not spring spontaneously or magically from a good idea. Discussed below are several key contributors to the success of *Mtu ni Afya* as well as of the other Tanzanian campaigns.

An active adult-education field staff. Because groups required supervision and organization and because supplies had to be coordinated, some sort of dependable infrastructure was needed. In this case, the field staff of the adult-education division of the Ministry of National Education supplied the necessary structure; in a different context, another agency or organization could perform the same function.

Strong national political support. At the time of the "Man is Health" campaign, the Tanzanian adult-education network consisted of full-time personnel at each administrative level from ward (slightly larger than a village) to region. This network grew from 62 district adult-education officers in 1970 to nearly 2,300 full- and part-time staff in 1973. The duties of the administrative and supervisory staff include assisting in opening and maintaining classrooms and in class activities, in recruiting teachers, in allocating resources, in training teachers, in publicizing, in providing community guidance, and in communicating with TANU, the government, and other organizations.

The full commitment of political parties and governments was undeniably crucial to all of the successful campaigns that have been examined in the course of this study. For the future, however, regional or local action may be feasible where national support cannot be expected.

Inter-ministerial cooperation. It doesn't matter to a villager which ministry provides the village with a clean water supply. Unfortunately, the ministries themselves are only too concerned about who gets credit. Institutional rivalries and bureaucratic conflicts—harsh realities—are not apt to disappear simply because they have been condemned by participants in international seminars and others. Yet, *Mtu ni Afya* was proof that strong inter-ministerial cooperation can actually flourish within the context of specific, intensive, action-oriented programs. The National Coordinating Committee successfully brought the interests and capabilities of those agencies involved together in an effort that at least three ministries (Education, Health, and Rural Development) were only too pleased to claim in their annual reports. Often, ministries unwilling to make any permanent personnel shifts are quite willing to commit their field staff for relatively short periods. The fact that mass campaigns are short and intensive increases greatly the likelihood of inter-ministerial collaboration.

Table 14

COMPARISON OF MEDIA EXPERIENCES

Countries	Kind of program	Group discussion	National political support	Two-way communication	Range of topics	Media	Scale
India and Ghana	Rural Forum	Yes	No	Yes	Extensive	Primarily radio, textbooks	Selective
Cuba	Literacy Campaign	Yes	Yes	No	Limited	Textbooks, some radio, posters	Mass
China	Preventive Health Campaign	Yes	Yes	No	Limited	Radio prior to 1958, print	Mass
Tanzania	"Man is Health" Campaign	Yes	Yes	Limited	Limited	Radio, textbooks posters, printed cloth	Mass

Integrated or horizontal approach to rural development. Ideally, inter-ministerial cooperation yields integrated development. Bringing better health to any village includes, at the very least, matters of water supply, latrine construction, food supply, and education. Change in any one of these factors alone cannot eliminate or significantly reduce the incidence of disease. From the ministerial point of view, this means that water development, rural construction, agricultural, and educational skills must be coordinated at *every* level.

Limited scope of campaign subject matter. One of the crucial weaknesses in community-education campaigns has been the counterproductive attempt to accomplish too much in one campaign. As indicated in Table 14, such was the case for the farm forums in India and Ghana. The early Tanzanian campaigns were also unmanageably broad in scope, devoting one week to school, another to farm cooperatives, and yet another to health. Since community pressure, increased consciousness, and subsequent action build slowly, narrowing the focus of campaigns is essential if an educational program is to inspire action.

Campaign focus relevant to all of intended audience. Information presented in a campaign must appeal to the needs and situations of *all* those taking part. The number of subjects as universally applicable as health would seem to be limited. (Even for the "Man is Health" campaign, as discussed in the latter part of Chapter 5, some regions and villages found certain topics irrelevant.) If a nation wants a response from its people, it must speak to their *local* concerns. Surely there is no reason why the radio study-group approach could not be used for regional or even strictly local campaigns.

Use of all available forms of communication. Radios are not magic! They will not work miracles and are useful only as a part of the overall campaign approach. But radios are ubiquitous, and it is that fact, rather than the medium's intrinsic qualities, that makes radios important for campaigns. Use of *all* available media made for maximum impact in Tanzania. Messages printed on cloth, local dramatizations of issues, political meetings, notices posted in railroad cars, newspapers, dance, and word of mouth all played parts in Tanzania's campaigns and in those of China and Cuba as well.

Tanzania has institutional resources that many countries can't match; on the other hand, other countries have transportation and communication infrastructures superior to Tanzania's. Certainly the most important ingredient in the "Man is Health" campaign was commitment—commitment by the institutions involved to do all they could to promote learning and action to improve health in rural areas. Appropriately modified, the methods used in Tanzania could work anyplace and on any scale. With strong commitment backing them up, radio and the study-group approach can be powerful tools for development.

7

A WORD ON RECENT DEVELOPMENTS IN TANZANIA

A lot has happened in Tanzania since the 1973 health-education campaign described in this study took place. In 1975, the country saw the culmination of a five-year literacy campaign that raised the literacy rate from roughly 25 percent in 1970 to 75-80 percent in 1975. This gain represents one of the most stunning educational achievements in Africa and an achievement that has taken place in a nation that is listed as one of the 25 poorest countries in the world.

1975 also saw the mounting of another mass campaign on food production and nutrition, the "Food is Life" campaign. (An excellent description of this campaign was written by the Director of the Institute of Adult Education, Fr. Daniel Mbunda, and is available in the first issue of the Tanzanian Adult Education Journal.) The "Food is Life" campaign was in many ways more complex than the campaign described herein, since food habits and growing patterns vary from location to location. As with this campaign, there was a strong emphasis on practical achievement. Pre-school community feeding programs, workers' canteens, and widespread development of gardens were some of the results of the campaign.

In November 1977, the Ministry of Education announced the achievement of universal primary education . . . a place for every boy and girl to attend school. The method used to accomplish this goal was to take the lessons from the mass campaigns for health, literacy, and other aspects of political education and to apply them to the task of primary education. The communities built the schools themselves with their own skills and, largely, with their own funds. The teachers have been and are still being trained through a combination of correspondence education, face-to-face instruction, and radio lessons—methods first developed to reach the broad adult population.

What about more mass campaigns? The situation is not completely clear. There are some in Tanzania who feel that large-scale campaigns divert resources and energies for programs that produce short-term gains. But there are others who counter by saying that campaigns have demonstrated a capacity for doing what cannot be done in any other way and what is needed is the better linking of the such large-scale efforts with ongoing programs. Two topics for further campaigns, the role of women in development and the use of appropriate technology, are being discussed in 1978. Whatever the decision, the programs that are adopted will be carried out with considerable boldness.

The campaigns and the successes of adult-education programs, along with other accomplishments in Tanzania, are announced with a combination of fanfare and humility. But they should not be seen as models to be picked up and used. There is much room for improvement, much need for criticism, and great cause for a continuing struggle. Nor should this paper be used as a blueprint. It should, instead, be seen as the presentation of materials for discussion and reflection.

APPENDIX

Table 15

TANZANIA'S HEALTH CAMPAIGN: EXTERNALLY FINANCED COSTS

Expense Category	Tz Shillings	U.S. Dollars
Training of study-group leaders		
Travel and other expenses for training teams that attended zonal, district, divisional, and ward training seminars	61,600	8,627
Setting up and running district and divisional seminars	463,000	64,846
Purchasing and recording cassettes used in training	11,000	1,541
Production of study guides and group-leader manuals		
Typing and other general services, manuscript stage	3,000	420
Paper (220 metric tons of newsprint)	440,000	61,625
Other materials and photography	1,000	140
Printing	745,000	104,342
Distribution	196,000	27,535
Production of radio programs	3,000	420
Publicity (including filming of study groups and filming of shows used to promote study activities)	1,500	210
Research (excluding that covered under the "training" category)	14,000	1,961
Post-campaign publications (reports and other follow-up)	2,500	350
TOTAL COSTS	1,942,200	272,017*

*Does not add exactly due to rounding

BIBLIOGRAPHY

Aiseshiah, Malcolm S., "Education and Productive Work in India," *Prospects*, Vol. IV, No. 2 (Summer 1974).

Barrett, Hugh, "Tanzania: Planning a National Mass Adult Education Campaign," paper presented at the Conference/Workshop on Non-Formal Education and the Rural Poor, Michigan State University, September 26 to October 3, 1976.

Beltrán, Luis, *Radio "Forums" and Radio "Schools" in Rural Mass Education for National Development* (Stanford: Institute for Communication Research, 1969).

Bhatt, B.D., and L.T. Krishnamoorthy, *Radio Broadcasting Serves Rural Development*, Reports and Papers on Mass Communication, No. 48, 1965.

Blid, H., Private communication, Brunasvik, Sweden, November 30, 1974.

Castro, F., "Universidad Popular," in *Education y Revolucion* (Havana: Imprenta Nacional de Cuba, 1961).

Chen Pi-chao, "China's Population Program at the Grassroots Level," *Studies in Family Planning*, Vol. 4, No. 8 (1973); 219-27.

Chen Pi-chao, "The Planned Birth Program of the People's Republic of China," in *Population White Paper, 1974* (Washington, D.C.: World Bank, 1974).

Coleman, W.F., A.A. Opku, and Helen C. Abell, *An African Experiment in Radio Forums for Rural Development* (Paris: UNESCO, 1968).

Commision Nacional Cubana de la UNESCO, *Cuba y la Conferencia de Educacion y Desarrollo Economico y Social* (Havana, 1962).

Dodds, T A., *Multi-Media Approaches to Rural Education* (Cambridge: International Extension College, 1972).

Fagan, R. F., *Cuba: The Political Content of Adult Education*, Study No. 4, (Stanford: Hoover Institution, 1964).

Fagan, R. R., *The Transformation of Political Culture in Cuba* (Stanford: Stanford University Press, 1969).

Faundes, Anibal, and Tap Luukkainen, "Health and Family Planning Services in the Chinese People's Republic," *Studies in Family Planning*, Vol. 3, No. 7 (1972): 165-67.

Freire, Paulo, *Education for Critical Consciousness* (New York: Seabury Press, 1973).

Freire, Paulo, *Pedagogy of the Oppressed* (London: Penguin, 1972).

Fu, L., "Achievements of the Association in the Past Ten Years," *Chinese Medical Journal*, Vol. 79 (1959): 208-18.

Gillette, A., *Cuba's Educational Revolution* (London: Fabian Society, 1972).

Grenholm, Lennart H., *Some Campaign Considerations* (Geneva: International Bureau of Education, 1975).

Hall, B.L., *Wakati wa Furaha: An Evaluation of a Radio Study Group Campaign* (Uppsala: Scandinavian Institute of African Studies, 1973).

Hall, Budd L., and C. Zikambona, *Mtu ni Afya: An Evaluation of the 1973 Mass Health Education Campaign in Tanzania*, Studies in Adult Education Report No. 12 (Dar es Salaam: Institute of Adult Education, June 1974).

Horn, Joshua S., *Away with All Pests: An English Surgeon in People's China*, (London: Monthly Review Press, 1969).

Illich, Ivan, *Deschooling Society* (New York: Harper and Row, 1970).

Jain, Kewalk, *The Amazing Story of Health Care in New China* (Emmaus, Pennsylvania: Rodale Press, 1973).

Jolly, R., "Education," in *Cuba: The Economic and Social Revolution*, ed. Dudley Seers (Chapel Hill, North Carolina: University of North Carolina Press, 1964).

De Kadt, Emmanuel, *Catholic Radicals in Brazil* (London, New York, Oxford University Press, 1970).

Lee, H., *Education for Rural Development in the People's Republic of China*, Background Paper No. 3 (Essex, Connecticut, International Council for Educational Development, 1972).

McAnany, Emile G., *Radio's Role in Development: Five Strategies of Use*, Information Center on Instructional Technology, Bulletin 4 (Washington, D.C.: Academy for Educational Development, 1973).

Ma Hai-teh, "With Mao Tse-tung's Thought as the Compass for Action in the Control of Venereal Diseases in China," *China's Medicine* (October 1966): 52-67.

Mao Tse-tung, "Some Questions Concerning Methods of Leadership," *Peking* Review, Vol. III, 1967.

Mathur, J., and P. Neurath, *An Indian Experiment in Farm Radio Forums* (Paris: UNESCO, 1959).

Nicol, John, et al., *Canada's Farm Radio Forum* (Paris, UNESCO, 1954).

Nyerere, J.K., *Freedom and Socialism* (Dar es Salaam: Oxford University Press, 1968).

Ohliger, J., *Listening Groups: Mass Media in Adult Education* (Boston: Center for the Study of Liberal Education for Adults, 1967).

Rogers, Everett, "Communication in Development," in the *Annals of the American Academy of Political and Social Science*, March 1974.

Tchannerl, G. *Survey of Water Usage in Bukoba Region*, paper presented at the 1973 East African Social Sciences Conference, Dar es Salaam, Tanzania.

Thomas, I. D., and A. C. Mascarenhas, *Health Facilities and Population in Tanzania* (Dar es Salaam: Bureau of Resource Assessment and Land Use Planning, 1973).

UNESCO, *Methods and Means Utilized in Cuba to Eliminate Illiteracy* (Havana: Ministry of Education, 1965).